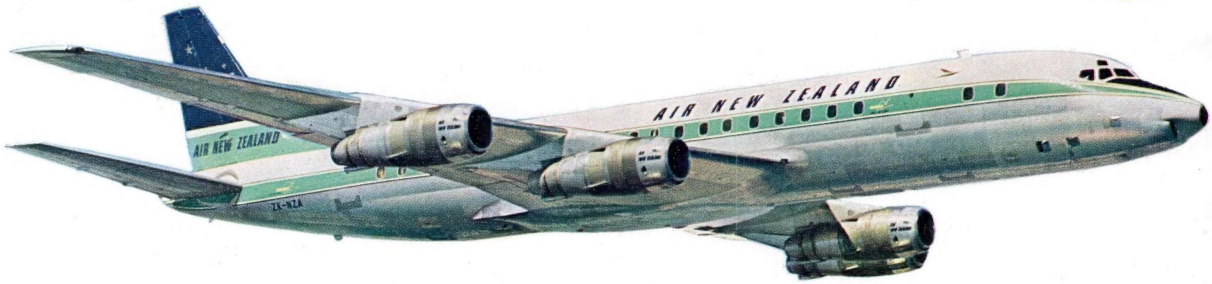

AUCKLAND
INTERNATIONAL
AIRPORT

What can you give an airline on its twenty-fifth birthday?



Silver plated wheel-chocks?
A pair of monogrammed windsocks?
We think not.
Besides, we already have service, courtesy, and as friendly a bunch of employees as you'd find anywhere.
Then why not a matched set of DC-8 jetliners in AIR NEW ZEALAND colours?

The newest version, custom-built for AIR NEW ZEALAND and South Pacific service.

The swift, comfortable, delightful DC-8, adding extra ease, extra efficiency, extra friendliness to the pleasures of flying to North America, Australia, throughout the Pacific and to the Orient with AIR NEW ZEALAND.

AIR NEW ZEALAND

A2572

★★★★★ THE FIVE STAR JETLINE in association with QANTAS and BOAC

Auckland International Airport

OPENING CEREMONY–JANUARY 29, 1966

CONTENTS

FRONT PAGE PICTURE BY ROSS WHITE, BY COURTESY OF AUCKLAND AERO CLUB.

Official Souvenir Programme and Booklet

Published by the Auckland International Airport air display committee in association with the airport committee of the Auckland Regional Authority and printed by Wilson and Horton Ltd. and N.Z. Newspapers Ltd.

PRICE 2/6

PRIME MINISTER'S MESSAGE

JANUARY 29, 1966, is an important day in New Zealand's march of progress. On this day the official opening of the new Auckland International Airport at Mangere is celebrated — complete with an ambitious air pageant of flying and static displays which many thousands of New Zealanders will see during the pageant's three-day duration.

Impressive as they will be, however, the crowds and the flying displays, the aircraft and their support equipment, the new 8500ft. runway and the well-appointed buildings and navigational aids, are but the outward signs of something less tangible but much more important. The commissioning of this jet age airport at Auckland marks a turning point in New Zealand's communications with the rest of the world.

The country's former position of relative isolation on a spurline connection with the main trunk jet routes at Fiji and Australia, is now a thing of the past. Henceforth New Zealand is placed astride the main trans-Pacific air routes. Regular, speedy and reliable connections by jet aircraft now link New Zealand to many points around the Pacific Basin, and beyond.

These long range jet aircraft will have the effect of almost eliminating the barrier of relative isolation which commercially has handicapped this country, and militarily may well have helped it, in the past. From now on, New Zealand will have more ready and speedy access to other countries, and other markets. The flow of tourists, which in recent years has been building steadily, is likely to increase dramatically in the months ahead.

The Auckland International Airport represents an investment in the country's transport progress of £10 million. This is additional to the investment made by the nation's own international airline, Air New Zealand, of £2 million in jet base facilities at the airport, and a further £10 million in long range pure jet equipment.

On behalf of the Government and the people of New Zealand, I congratulate the people of Auckland on this magnificent new addition to the city's facilities which will serve to strengthen Auckland's role as the leading tourist and commercial gateway to New Zealand. Many people have played an important part in the planning and the building of the airport. The Government and its departments concerned are proud to have been associated with this venture.

FOREWORD

ALTHOUGH commercial jet airliners will have been operating in and out of Auckland's international airport for over two months before the official opening ceremony, the day the Governor-General of New Zealand, Sir Bernard Fergusson, makes the official pronouncement must surely be the most important date in New Zealand aviation history.

January 29, 1966, is likely to produce probably the greatest display in the Southern Hemisphere of both civil and military aviation.

While the clouds of war overshadow the horizon in places and the representation from four Commonwealth Air Forces could have been affected, we are still assured of an impressive display.

Light aircraft will be appearing in large numbers; aerobatic thrills are promised; and the magnificent static display will depict all aspects of the aviation industry.

The day is also the culmination of years of planning and effort in all walks of life, and it is appropriate therefore that such an occasion should be properly celebrated.

One must pay tribute to the foresight and work of many people, and particularly to the present Minister of Civil Aviation, Mr McAlpine.

This special souvenir programme has been prepared in the light of the importance of the occasion and has endeavoured to give a factual background, not only of the airport project alone, but of New Zealand aviation as a whole.

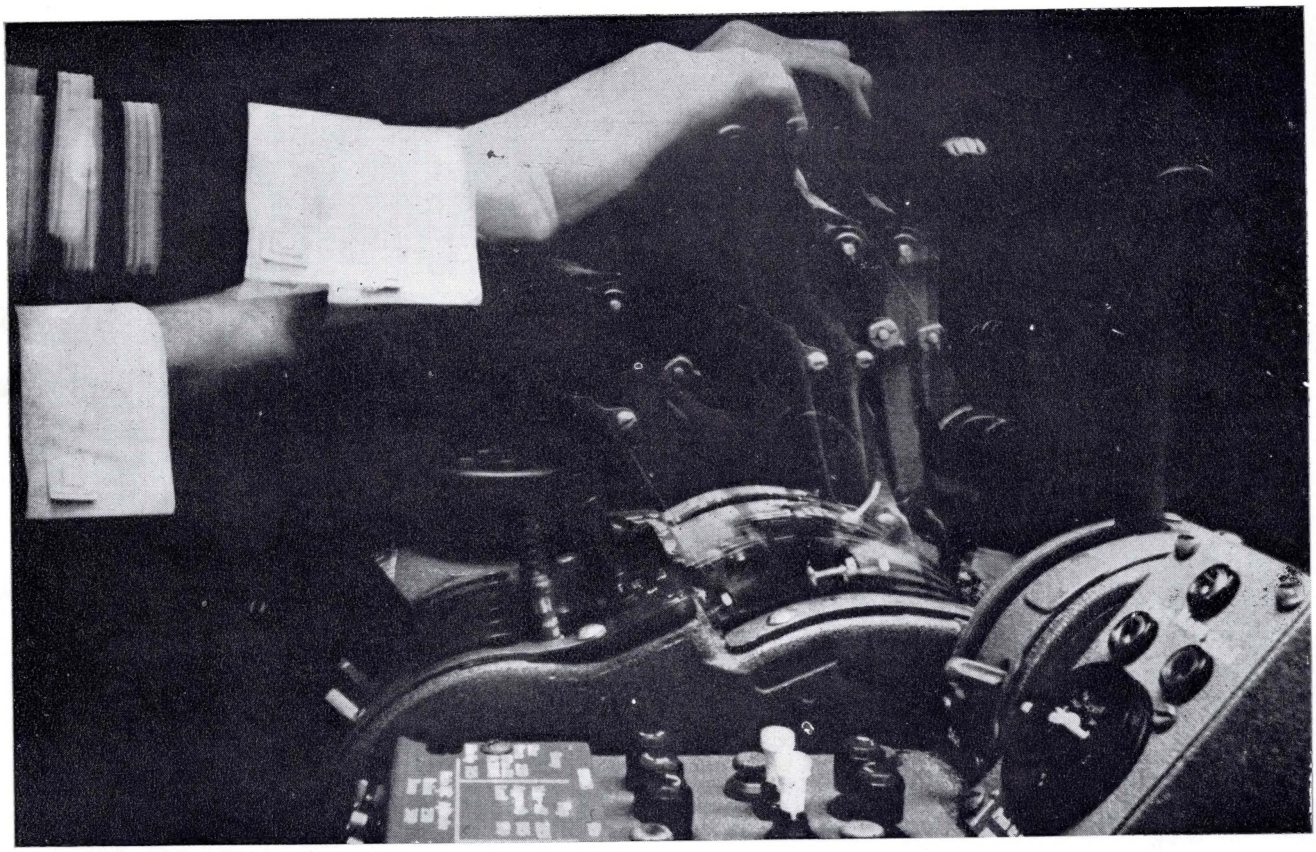
The Governor-General, Sir Bernard Fergusson, who will officially open the airport.

For that purpose I have drawn on many sources and wish to acknowledge with thanks the help of many, including Wilson and Horton Ltd, N.Z. Newspapers Ltd, Whites Aviation, the Royal New Zealand Air Force, Auckland Aero Club, and airline representatives.

It only remains for the event to happen, so that those who have toiled toward its organisation may see it come to a successful fruition.

D. P. HENDERSON,
Editor.

December 1, 1965.



The Rolls-Royce Spey in airline service, is backed by over 43,000,000 hours of short/medium-haul experience

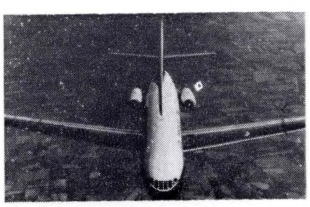
Frequent use of take-off power poses many problems for the short/medium-haul jet engine; and the experience required to solve these problems cannot be quickly or cheaply bought.

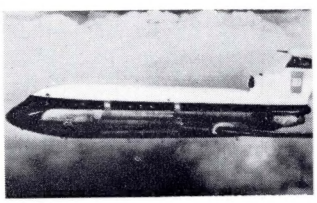
Rolls-Royce short/medium-haul experience is greater than that of all other aero engine manufacturers combined; in fact, nearly 90% of all short/medium-haul turbine aircraft in service are powered by Rolls-Royce engines. All this experience is behind the design and development of the Spey turbofan. The Spey benefits, too, in other ways; for essentially it is a 'baby Conway'; and the Conway is the world's most reliable jet engine.

Exceptional experience and a sound technical inheritance provide the Spey with the reliability and economy essential for profitable operation of short/medium-haul jets.

The Spey is in airline operation in both the Hawker Siddeley Trident and the BAC One-Eleven. The Spey has also been chosen for the Grumman Gulfstream II executive jet aircraft and the Spey Junior will power the Fokker F.28 Fellowship airliner, and the Lear Liner Model 40 jet transport.

ROLLS ROYCE





Experience with · 30 European airlines · 4 Canadian airlines · 11 U.S. airlines · 9 South American airlines · 8 Middle Eastern airlines · 8 African airlines · 2 Indian & Pakistani airlines · 9 Far Eastern airlines · 6 Australian airlines · 1 New Zealand airline

THE STORY

Auckland Aero Club in 1934

THE credit for first "discovering" Mangere as a suitable site for an aerodrome must be given to the embryo aero club movement in 1928, for it was in that year that the Auckland Aero Club decided on this spot for its headquarters and began construction of its first hangar.

The area selected was 50 acres and it was leased for a few shillings a week from Mr G. McRae Peacock.

None could possibly have foreseen what this choice of airfield presaged, and even when two years later Mangere was suggested as the site of a municipal airport its possibilities and eventual development were not dreamt of.

The aero club prospered in those early days and in 1930 decided to purchase the block at Mangere as its permanent headquarters.

In its recommendation, a special committee reported: "It is difficult to imagine that the present ground will ever become seriously affected by close settlement, particularly on account of the water frontage."

The price the club paid for its 80 acres 35 years ago was £7200!

Announcing the purchase, the club president, Mr S. R. Mason, commented:—

"The site has many advantages of vital importance for an aerodrome and training ground. It has good approaches, is well drained and is free from power lines, buildings and fogs."

Prophetic words indeed, and the wisdom of that choice has been emphatically confirmed.

Meanwhile, the Auckland City Council, with

OF

. . . . A DISCOVERY OF THE AUCKLAND AERO CLUB

Airport development by September, 1961

due consideration for the future of aviation, had called for a report on a site for a municipal airport.

So it was, also in 1930, that the council's works committee, after reviewing 14 sites, submitted three which, in its opinion, "would meet all the requirements of a first-class airport."

One of them was Mangere.

And, just 35 years later, the City Council, although noticeably changed in personnel, has gained its wish.

Incidentally, the other two places recommended were at Point England, on the eastern shore of the Tamaki River, and part of the Massey Park Estate, Mangere East.

But the council's first discussion must have set a horribly familiar pattern — "It was decided to receive the report, and consideration was deferred until the next meeting three weeks hence," reported the New Zealand Herald.

In its wisdom, however, the council finally settled for the Tamaki area. But that was five years later.

To wind up the Tamaki choice, a Government investigation committee also reviewed possible sites and decided on one on the upper reaches of the Manukau Harbour to the east of the Mangere bridge.

The aero club pressed on with its development of a landing ground 860 yards long north and south and 740 yards east and west.

"This was sufficiently commodious to provide an excellent landing-ground for the largest commercial aeroplane likely to be used in New Zealand," said local opinion at that time.

A residential clubhouse was opened in 1931, but it was destroyed by fire in 1938.

During the first 10 years of its life, Mangere became part of world aviation history on many occasions during an era of epic long-distance flights. It was the era when the man as much as his machine made these pioneering projects possible.

The flight of Sir Charles Kingsford Smith and C. T. Ulm from Sydney to Christchurch in

Continued on page 9

The right approach...

wheels about to touch—gently down.

good flying

but we at Shell like to feel that we have the right approach too . . . a long term, but precision approach to aviation fuels—in research, manufacture and delivery.

good fuelling by SHELL

We are proud too . . . to offer service at Auckland's new International Airport

aviation service

IT HAS TO BE GOOD TO BE SHELL

September of 1928 really sparked off the glory of the Tasman crossing.

Neither of these two famous aviators landed at Mangere on these long flights, but they visited the aerodrome separately and together on their various tours through the country.

First to appear on the scene were R. G. Whitehead and E. R. Nicholl, who touched down at Mangere after a brief landing in North Auckland in November, 1934.

This was indeed an epic flight in an old Puss Moth. Because of an additional fuel tank in the cabin, the two men had to sit on one another's knees, performing acrobatics to change their positions. They had to spend the night at Doubtless Bay and turned up unexpectedly at Mangere the next morning.

Then came W. M. O'Hara, who made his flight in October, 1935.

He earned the distinction of being the first New Zealander to fly the Tasman solo. His was a comparatively uneventful flight, but in landing at Mangere after dark by the aid of flares the machine struck a fence and was slightly damaged.

Born in the Thames district, Mr O'Hara served in the Great War and then settled in Java where he had interests in rubber and coffee plantations. The aircraft he used was a British-made German Klemm Eagle.

It was Miss Jean Batten's personality and her extraordinary solo flight from England which set the seal on her popularity.

It certainly was a tense period on that day in October, 1936, because the aeroplane had no radio. But Miss Batten made landfall at New Plymouth and flew on to Mangere where a crowd of 8000 gave her a tumultuous welcome. For Miss Batten, already a world-famous aviatrix, it was a return to her home town.

This virtually closed the era of famous flights to Auckland, for it then became the turn of the flying-boat.

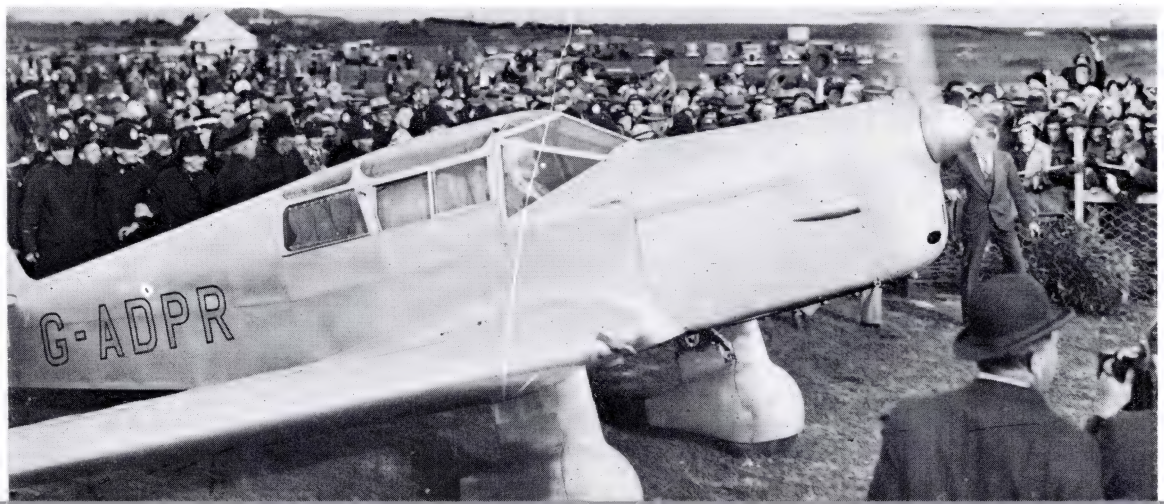
A neswpaper report of the time expressed the current thinking: "The future of Mangere seems uncertain. Indications are that it will not remain Auckland's airport indefinitely, the recent report of the special committee appointed to investigate airport sites for Auckland mentioning other localities."

But commercial services had started in New Zealand. Union Airways was formed in 1936 and Mangere became the official Auckland terminal a year later.

Then came the Second World War and Mangere was taken over by the Royal New Zealand Air Force. Aero club flying resumed in

Continued on page 11

Jean Batten's aeroplane coming to rest at Mangere after her solo flight from England. At left, Miss Batten acknowledges the applause of the crowd



NEW STANDARDS OF AIR TRAVEL COMFORT

are being pioneered throughout the world by British Aircraft Corporation's two rear-engined jet airliners, the magnificent VC10 intercontinental airliner and the short-haul BAC One-Eleven

BOTH BUILT BY BRITISH AIRCRAFT CORPORATION

100 PALL MALL LONDON SW1

All enquiries should be addressed to: BRITISH AIRCRAFT CO., LIMITED, BOX 547, 31 Panama Street, Wellington, C.1.

January, 1946, when one Tiger Moth aircraft was made available by the Government.

Meantime, with historical precision, the Auckland City Council of the day again called for a survey to determine the best site for a major airport in Auckland. And, true to form, the Government prevaricated, and then in April, 1946, announced that Whenuapai would be made available.

Making the announcement, the then Minister of Works, Mr Semple, was in prophetic form: "When the new road (to Whenuapai) is constructed there will be no need for another aerodrome for this city for another 10 or 20 years." (Making 1966.)

And so the Auckland Aero Club settled down again at Mangere and continued to thrive, although the airfield was purchased by the Government. It was also still being used by the National Airways Corporation, the successor to Union Airways, until 1948 when Whenuapai became the terminal.

Also about this time more reports were sought and decisions urged on an alternative civil airfield to Whenuapai. The arguments raged between Mangere and Tamaki.

Auckland local bodies continued to press the Government for action, but the Government would still make no decision.

A site at Wiri was proposed, but this was rejected in 1953 when the Government was reported to be examining a proposal to reclaim part of the Manukau Harbour in order to extend the present Mangere runway, but only "if Auckland is willing to contribute to the cost as local bodies have done elsewhere."

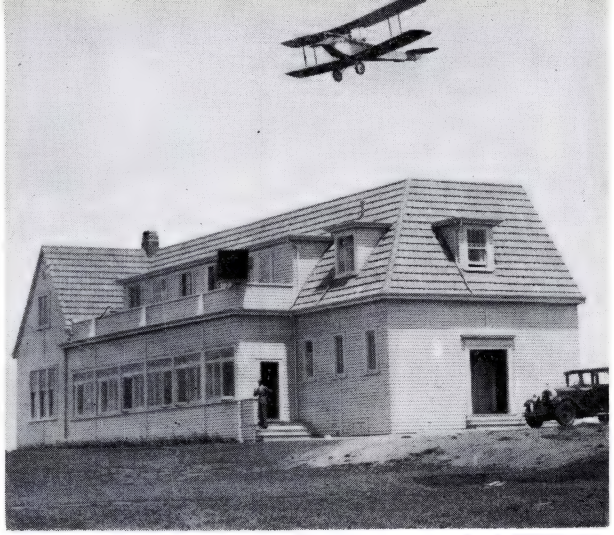
The Whenuapai airport and terminal were coming under constant fire from all quarters. The runway was said to be not long enough; the terminal building was inadequate; it was really an Air Force base.

History was made in March, 1954, when the present aerodrome at Mangere was named as the site for an international airport.

It was considered that the cost of building such an airport would be about £3 million and that it would take three years to construct.

"The Government is ready to negotiate with Auckland on the surveying and construction of a new civil airport at Mangere," said a newspaper report of April 6, 1954. "It is proposed that the cost will be shared equally between the Government and Auckland local bodies, as was done at Rongotai (Wellington) and Harewood (Christchurch)."

This joint announcement by the then Prime Minister, Mr Holland, and the Minister in Charge of Civil Aviation, Mr Macdonald, took six years to implement.



The clubhouse which was destroyed by fire in 1938

At the same time, Auckland was designated as the "logical terminal for passengers coming from Pacific countries to New Zealand."

Mr Shand, who was Minister in Charge of Civil Aviation in 1955, made another prophetic statement then when he said he believed that a new airfield in Auckland would not be wanted for 10 years, but if there was an "acute need" for it before then he thought it would be possible to "hurry up construction."

After years of disagreement between local bodies and with the Government, the calling in of an American consultant, arguments and controversy, the Government put up a scheme in May, 1960, which received unanimous City Council approval.

Two months later the Auckland Aero Club began to fade out of the Mangere picture when it announced its intention of moving to Ardmore in September. But it was not until the following February that the club ended its 32 years association and left for Ardmore.

And so a new milestone was reached in the history of this small area which was once farmland, when on October 10, 1960, a start was made on the preparatory work for the jet airport now ready for use.

On the same day the airport agreement between the Government and the Auckland City Council was signed.

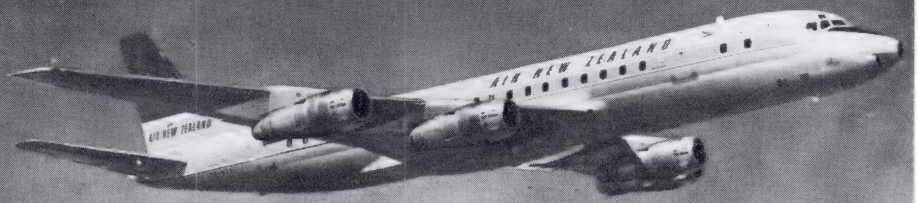
Ever since, the labour has gone on day after day, first the earthworks, then the landing strip and on to the buildings.

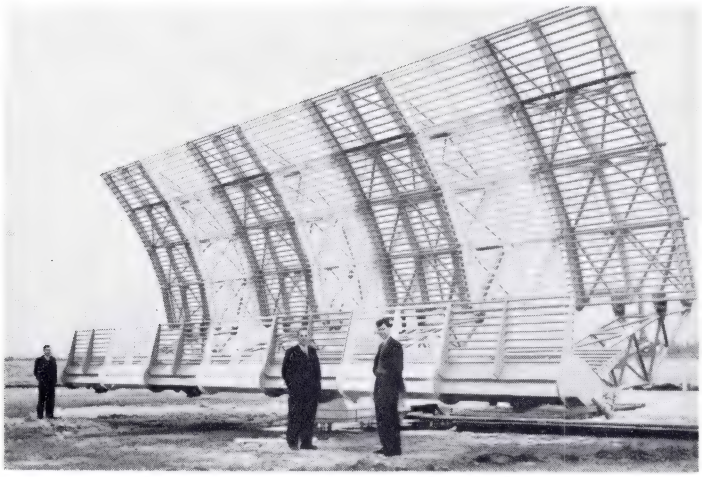
Today it is no longer Mangere, but the Auckland International Airport — a proud monument to those who strived for so many years to keep up with the progress of aviation, and a landmark in the growth of a beautiful city.

AWA and Marconi...

In the air

All Air New Zealand DC8's are fitted with Marconi Doppler Navigators supplied by AWA



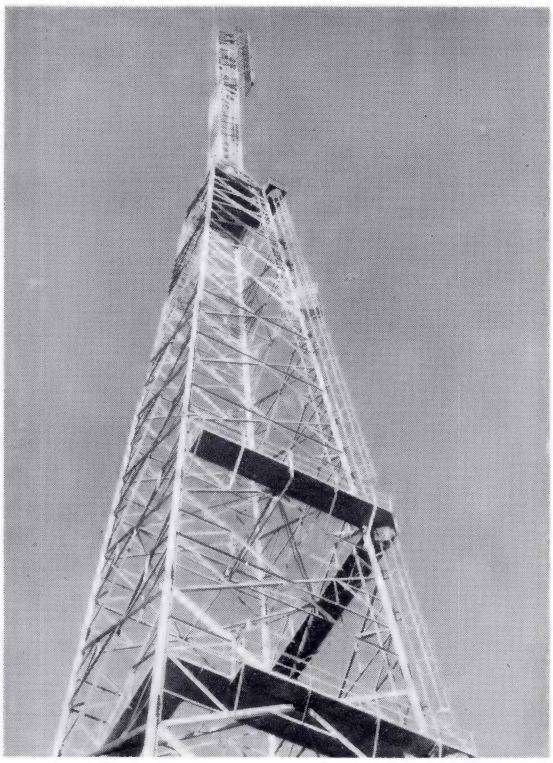


On the ground

Marconi Surveillance Radars installed by AWA/Marconi engineers are in operation at Mangere, Ohakea, Wellington and Dunedin Airports. Installation at Christchurch International Airport is under way.

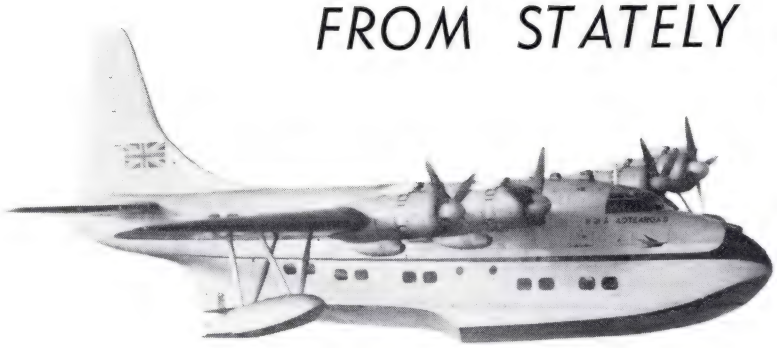
Television

Marconi & AWA have also supplied and installed the main television transmitting equipment for New Zealand Broadcast and Television Stations.



The Marconi Company **Amalgamated Wireless (Australasia) N.Z. Ltd.**

FROM STATELY FLYING-BOAT TO MODERN JET . . .



AIR NEW ZEALAND

THE giant DC8s of Air New Zealand, which race over 7000 miles from Auckland to Los Angeles in less than 14 hours' flying time, are the direct successors to a high-winged flying-boat which nosed out from Auckland's Mechanics Bay nearly 26 years ago — on April 30, 1940.

This was the start of the first airline service out of New Zealand, and the operational start of Tasman Empire Airways Ltd., which last year changed its name to Air New Zealand.

There were 10 people in the 19-seater Empire flying-boat as Captain J. W. Burgess opened his throttles and the first Aotearoa gathered speed across the Waitemata.

A little over nine hours later, Captain Burgess brought the aircraft down into Sydney's Rose Bay, 1300 miles away.

Nine hours was not a bad time. The flying-boats, cruising at 138 miles an hour, kept up a weekly service over the same route thereafter, but head winds sometimes lengthened the crossing time to 11 hours.

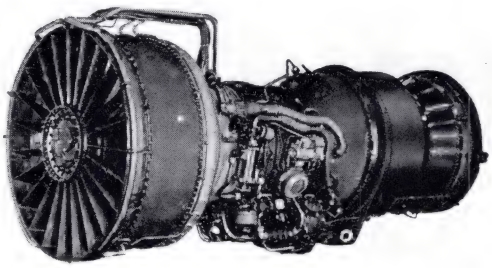
Viewed across the span of only 26 years, TEAL's first flying-boats now appear archaic. But progress in aviation has tended to out-distance progress in other fields. A throttled-back 131-passenger DC8 would be unable to hold formation with an Empire flying-boat which would be much too slow.

But in 1940 the flying-boats were as modern as the DC8's are today. Throughout the war years they gave reliable service to New Zealand — in fact, they were then the country's only regular contact with the outside world.

Continued on page 15

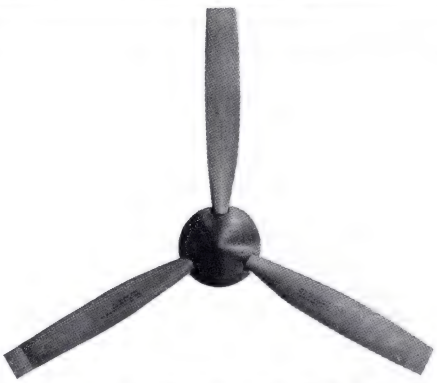
Aviation is important to the growth of New Zealand business

Aviation provides New Zealand business with broad opportunities in the transportation of people, goods, and equipment. United Aircraft's broad range of aircraft products — from powerplants to helicopters — have been used throughout the world for over a quarter of a century.



Pratt & Whitney Aircraft jet engines are powerful, economical, and extremely reliable. These turbojet and turbofan engines power most of the world's commercial jetliners.

Pratt & Whitney Aircraft still makes replacement parts for its piston engines, ranging from the famed early Wasps to the widely-used R-2800's. These parts, available throughout the world, are made to the same high quality standards as the original engine parts. This quality ensures many years of dependable service and protects your investment.



Hamilton Standard division of United Aircraft makes propellers for piston, turboprop, and VTOL aircraft, as well as fuel controls for jet engines. Its famous Hydromatic propellers are in worldwide use.

Sikorsky Aircraft helicopters are used in more than 30 countries for military, commercial and industrial purposes. Helicopters like the twin turbine S-61N, above, are now hauling passengers and cargo in the United States, Australia, Europe, and Asia.

United Aircraft International

EAST HARTFORD, CONNECTICUT 06108, U.S.A.

U
SUBSIDIARY OF UNITED AIRCRAFT CORPORATION
A

OVERSEAS REPRESENTATIVE FOR:
PRATT & WHITNEY AIRCRAFT · HAMILTON STANDARD · SIKORSKY AIRCRAFT · NORDEN · UNITED TECHNOLOGY CENTRE · VECTOR · UNITED AIRCRAFT OF CANADA LIMITED
UNITED AIRCRAFT INTERNATIONAL REPRESENTATIVE IN NEW ZEALAND: BROWN & DUREAU LIMITED, P.O. BOX 2192, AUCKLAND, NEW ZEALAND.

A flying-boat at anchor in the beautiful tropical setting of Aitutaki Island on the service to Tahiti

Until 1945 they were also engaged on special charter work and reconnaissance flights to Noumea, Fiji, Tonga, Samoa and as far away as Honolulu to assist the war effort.

In 1944 the Tasman frequency was stepped up to three return trips a week, an ambitious schedule when it was brought in by an enthusiastic staff.

In 1946, the purchase of four Sandringham flying-boats with 30 seats each and a cruising speed of 172 miles an hour cut the average Tasman travelling time to eight hours. But an engine-cooling difficulty put these out of service for four months in 1948, during which time schedules were maintained with chartered DC4 aircraft.

In 1949, four Solent flying-boats were delivered to TEAL, followed by a fifth in 1951 — in time to deal with the demand when the waterfront strike of that year swung travel away from the sea. By this time, also, TEAL had taken over from the National Airways Corporation the Auckland-Suva service, started the Suva-Lambasa-Suva run, and inaugurated Wellington-Sydney flights and Auckland-Chatham Island services.

While still an airline of flying-boats, TEAL chartered DC4 landplanes to begin its services between Melbourne and the newly-dedicated Harewood Aerodrome, at Christchurch, in June, 1951.

In December of that year, TEAL inaugurated one of its glamour routes, the Auckland-Suva (Fiji)-Aitutaki (Cook Islands)-Papeete (Tahiti) service. Apia (Samoa) was included in October, 1952, as the South Pacific traffic began to grow.

For its "outstanding contribution toward the maintenance of safety in the air," TEAL was awarded for 1951 the Cumberbatch Trophy, by the Guild of Air Pilots and Air Navigators.

TEAL had been formed in 1939 as a further link in the Commonwealth chain of services, 50 per cent a New Zealand holding. 30 per cent Australian and 20 per cent British. In 1953 ownership of the airline was reorganised, TEAL becoming a joint New Zealand and Australian carrier, taking over three DC6 aircraft to operate trans-Tasman and Hibiscus (Auckland-Nandi) services.

With this change of equipment, some of the older routes were no longer possible. Instead, the 265 miles an hour airliners were clipping Tasman crossings to 5½ hours and serving Auckland-Sydney, Sydney - Christchurch - Melbourne and Auckland-Nandi, while the Solents — with the exception of one for the Suva-Papeete sector — were being withdrawn.

Wellington's link with Sydney was suspended in 1954 when the flying-boats went out. It was not resumed until the capital's extended airport at Rongotai was opened in 1960.

In 1955 TEAL made its 10,000th Tasman crossing, and a year later met the busiest period of its history. TEAL carried 2500 passengers to

Continued on page 16

the 1956 Olympic Games in Melbourne, supporting its own fleet with 10 chartered Qantas Super Constellation flights and several DC4 flights from other airlines.

Introduced on an experimental basis in February, 1957, the Auckland-Melbourne service was a regular operation by October. A similar trial link between Auckland and Brisbane quickly established its worth as a permanent route.

Then came the era of jet-prop aircraft — three Lockheed Electras delivered in time for the 1959 Christmas services from Auckland to Australia to be run in four hours.

Speed and efficiency had their place and the Electras served both demands, but when the last Solent was withdrawn from the Coral Route in September, 1960, Tahiti felt it had lost something — the magic of a pioneer service and the colourful personality who was "Captain Joe," Captain J. S. Shephard, TEAL's veteran flying-boat commander.

The following April, "Captain Joe" received the Brackley Memorial Trophy at the Guildhall, London, from the Duke of Edinburgh, for his outstanding achievement in operating flying-boats for 20 years.

In the build-up of the tourist industry and as an outlet for commerce, New Zealand felt more and more the need for its own overseas airline. Accordingly, negotiations between the Australian and New Zealand Governments culminated in April, 1961, in the Dominion purchasing Australia's half-share for £811,400.

This made the next move logical and necessary — conversion to jets and expansion of routes, with North America and Asia, the big population centres of the Pacific, the new terminals.

Accordingly, the big pure jet DC8 airliners were ordered.

Before they were delivered, however, the name TEAL was changed to Air New Zealand as an integral part of the airline's expansion programme. This identified the airline with the country it was geared to serve, and gave the nation a share in the benefits of every £ (or dollar) the company spent on its own promotions abroad.

Since its inception the airline has made its skills available to the aviation industry. Its

Mr F. A. Reeves, general manager of Air New Zealand

engineering workshops at Mechanics Bay, and now at Mangere, have played an important support role in defence and agricultural aviation by their assembly, maintenance and overhaul of aircraft and equipment.

This now accounts for more than 300,000 hours a year in specialist services.

With rising world prosperity, tourism became increasingly important, particularly to a country blessed with thermal wonderlands, lakes, rivers, green pastures and blue mountains.

Package tours brought in hundreds of groups — sportsmen, educationists, sighseers and a host of others — with a common interest in economy-priced holidays in a land of diverse attractions.

After Electras came on to the TEAL routes in 1959, air cargo flourished and it has increased by 300 per cent in the last four years.

TEAL carried just seven tons of freight in its first full year. Each of the DC8 airliners now in use can carry this amount of cargo — in addition to 131 passengers — on every flight across the Tasman.

It is a vast change from 25 years ago, when the country relied on one lonely flying-boat service a week as its only regular contact with the outside world.

The old Tasman Empire Airways fleet of DC6B airliners which were replaced by Electras in 1959

Almost any surface is acceptable for Hawker Siddeley 748 operation... rough stretches of grass, ankle-deep mud, snow, sand or ice. Rolls-Royce powered, this rugged 58-seat airliner goes anywhere a DC3 will go — with more payload and passenger comfort, at half the cost.

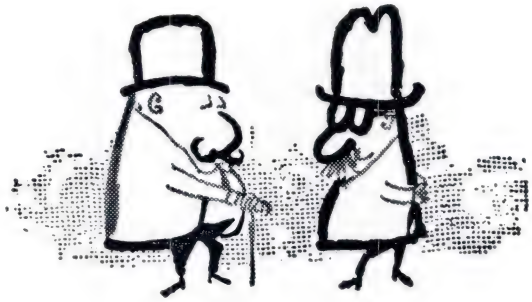
The 748 is designed to stay in the air longer between overhauls and to have major inspections carried out during routine maintenance. It is constructed throughout on fail/safe principles and every part can be inspected visually without extensive stripping.

Hawker Siddeley also produce the Trident and the highly successful twin jet 125 business aircraft.

HAWKER SIDDELEY 748

Hawker Siddeley Aviation, 32 Duke Street, St. James's, London, S.W.1. The largest aviation company in Europe. Other Hawker Siddeley companies supply missiles, rockets, aerospace equipment, electronics, electrical power generation and distribution, locomotives, marine and industrial diesel engines, gyros and platforms for sea, land and air navigation, light alloys, agricultural equipment, tankers and refuellers, and other general engineering products.

Represented in New Zealand by Hawker Siddeley International (N.Z.) Ltd., Wellington.



"I didn't know you were going to INDIA."

"I'm not."

"Then why are you flying AIR-INDIA?"

"You surprise me! AIR-INDIA flies to
PARIS
LONDON
NEW YORK
TOKYO
NAIROBI
DELHI
GENEVA
BANGKOK
SINGAPORE
ROME . . . enough?"

"Keep talking."

"FIJI
HONG KONG
BEIRUT
FRANKFURT
MOSCOW."

"MOSCOW?"

"Certainly!"

"How about Kuwait?"

"Only on Sundays. Look here, you'd better see your travel agent. He knows all about Air-India's world-wide air services."

AIR-INDIA

The airline that treats you like a Maharajah

Connecting flights to Sydney by trans-Tasman carriers

In association with BOAC and Qantas

9821

A149.97.NZ

NZNAC

A NETWORK COVERING THE DOMINION

TO the National Airways Corporation must go the full credit of bringing the country's domestic air services to their present high standard of efficiency. This is so in spite of the unique problems posed by terrain and topography as well as a comparatively small population.

However, it was left to private individuals to take the first pioneering steps in a new industry.

In the years between the world wars a number of small commercial airline companies were founded in New Zealand. But it was not until 1945 when an Act of Parliament established the New Zealand National Airways Corporation that a co-ordinated and sustained New Zealand-wide effort was made to bring commercial aviation to all parts of the land.

Before 1947 — when NAC first flew under its own name — there were three companies operating in separate areas. Union Airways Ltd flew the Auckland-Dunedin trunk route with a number of intermediate stops; Cook Strait Airways Ltd. linked Wellington with Nelson and Blenheim; and West Coast Air Travel flew along the narrow strip between the Southern Alps and the Tasman Sea.

By the Act, the management of the corporation came under a Government-sponsored board of directors, the chairman being Sir Leonard Isitt who retained this position until retirement in 1963.

The first board purchased the interests of the three companies, including their shareholdings, aircraft and other assets. Staff came from Union Airways and from the RNZAF Transport Squadron which had built up a distinguished record of war and postwar flying within New Zealand and over the South Pacific.

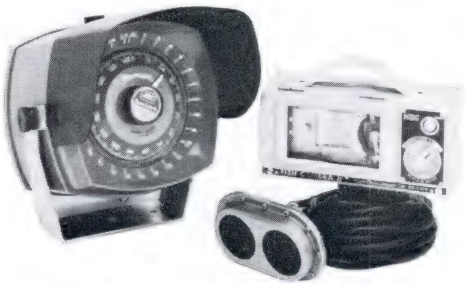
As could be expected, NAC's aircraft in those early days was a mixed fleet. There were Sunderland flying boats, Douglas DC3's, Lockheed Lodestars, Lockheed Electra 10A's, de Havilland DH89's and Fox Moths.

More DC3's became available with the decrease of RNZAF flying after the war and it was decided to standardise on that type for some years. All other types, apart from the Dominies, were progressively retired. These had a long life with NAC, and the last Dominie was taken off the Auckland-Whangarei route in late 1963.

By March, 1948, at the end of its first full

Continued on page 21

RECORD PLAYERS
from £9-15-0



DEPTHFINDER/FISHFINDERS
Indicating type £39/10/- Recording type £43/12/-

Portable
TAPE RECORDERS
from £9-5-0

LIQUOR, PERFUME,
CIGARS, CIGARETTES

Before you leave New Zealand

VISIT AUCKLAND'S DUTY FREE SHOP

WHO CAN BUY DUTY FREE?

Anyone departing by sea or air for an overseas destination, for a business trip, a holiday, or an extended stay.

HOW TO BUY DUTY FREE?

Visit our Duty Free Shop in Auckland City or at Auckland's International Airport. Select your purchases and pay for them in foreign currency or traveller's cheques. Sorry, we cannot accept New Zealand money. Purchases may be collected from the delivery counter at our shop in the Overseas Departure Lounge at the airport. Or, if travelling by sea, goods are delivered to the purser's office on board your ship and may be collected after sailing.

WHY BUY IN AUCKLAND?

Two important reasons. Firstly, the Auckland Duty Free Shop stocks an outstanding range of the world's goods at internationally competitive prices. Secondly, the Auckland Duty Free Shop will honour manufacturers' guarantees on cameras, watches, radios, radiograms, typewriters and electric shavers.

WHERE TO BUY DUTY FREE?

AIRPORT DUTY FREE SHOP
Auckland's International Airport
Telephone 569-569. Open
1½ hours before each
overseas aircraft departure

CITY DUTY FREE SHOP
Above Russell & Somers Ltd.
83 Customs St. East, Auckland
Telephone 32-936. Open
8.30 - 5.00 p.m. Mon.- Thurs.,
8.30-8.30 p.m. Friday

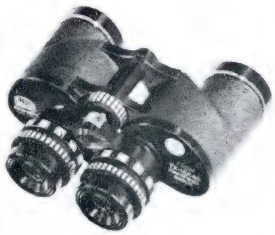
YES, WE HAVE A PRICE LIST — CALL IN OR WRITE

TRANSISTOR RADIOS
from £3-15-0

CAMERAS:
tremendous range of
models and prices

ALSO

Movie Cameras from £34.19.0, Car Radios from £15.17.0. Toys. Portable Typewriters from £21.8.0. Electric Shavers, Evening Bags, Compacts, Jewellery, Hair Dryers, Lighters, Pens, Famous Wilson Golf Clubs, Silver 15 Transistor Radio £36.18.0, etc. etc. etc.



BINOCULARS
from £6-13-0

PROJECTORS, movie and slide, from £9 - 0 - 0

WATCHES
By the world's leading
manufacturers from
£4 - 4 - 0

flying year, NAC showed a small financial surplus. But because of many factors substantial losses occurred in the three following years. The corporation's expansion was beginning at a time when labour and materials were very short; staff and equipment were housed in temporary airfield buildings and inadequate offices; and it was on the far side of the world from the suppliers of spares and components.

One of the tasks NAC was required to fulfill under the Act was "to provide air services to meet the needs of New Zealanders" in areas which, for a commercial airline, were obviously uneconomic.

But with its faith in the future of New Zealand aviation, the corporation continued its established services. That this confidence was justified was shown from 1952 to 1962 when the corporation showed an adequate profit after paying all the outgoings normally associated with a commercial enterprise, including interest on capital and income tax.

It may come as a surprise to many to know that NAC in its early days had services to the Pacific Islands, but between 1950 and 1954 these were gradually passed to Tasman Empire Airways (now Air New Zealand).

The first transfer was the Sunderland flying-boat service to Suva in June, 1950; in October, 1952, TEAL took over the regional services to more distant islands; and then in September, 1954, the Norfolk Island services were relinquished. This allowed NAC to concentrate its entire effort on the development and consolidation of internal flights.

In 1952 the Government set up the Air Services Licensing Authority to encourage privately-owned airlines to enter the commercial field. This also meant that NAC had now to apply for licences on routes over which it had a virtual monopoly and it could also relinquish some routes which had proved to be not justified economically.

During the early 'fifties detailed research was begun to find the most satisfactory aircraft for the eventual replacement of the DC3's. After six years the Fokker Friendship was selected and has succeeded the smaller aircraft on some routes.

Between early 1953 and August, 1957, passengers on the Wellington-Nelson and Wellington-Blenheim routes were once again able to use Rongotai airport. This service was provided by Heron aircraft until Rongotai was closed for major reconstruction.

In 1954 NAC moved its overhaul and maintenance staff and base from Palmerston North to a convenient 15-acre site at Christchurch Airport.

Continued on page 23

A view of Christchurch International Airport with the NAC hangars and workshops to the right

The jet is fairly common. The airline is one of a kind.

You see Jets just about everywhere these days.

Big airlines have them. Small airlines have them.

And with good reason: the Jet is the modern way to go places.

But there's more to running an airline than having a fleet of the finest aircraft.

And there's more to *choosing* an airline than comparing timetables or menus. What you want more than anything else is confidence, peace of mind, assurance. Call it what you will, it means everything.

And it's yours when you fly the World's Most Experienced Airline.

Come fly with us soon.

You can board a Pan Am Jet Clipper® in any one of 127 cities 'round the world. You can plan a trip to any one of 86 lands 'round the world.

And, wherever you go, you'll have the good feeling that comes from flying the very best there is.

There's nothing like it in all this world.

World's most experienced airline

First on the Atlantic First in Latin America
First on the Pacific First 'Round the World

Since the first buildings and workshops were erected at a cost of some £300,000, the facilities and scope of the plant have been extended, and today the corporation's engineering headquarters, in addition to handling all its own requirements, accepts outside work where high-precision workmanship is needed.

Here also the corporation has its four-year training course for 100 apprentices and a £53,000 Redifon ground trainer for pilots.

Adjacent is the stores department where there are some 100,000 separate items of a total value

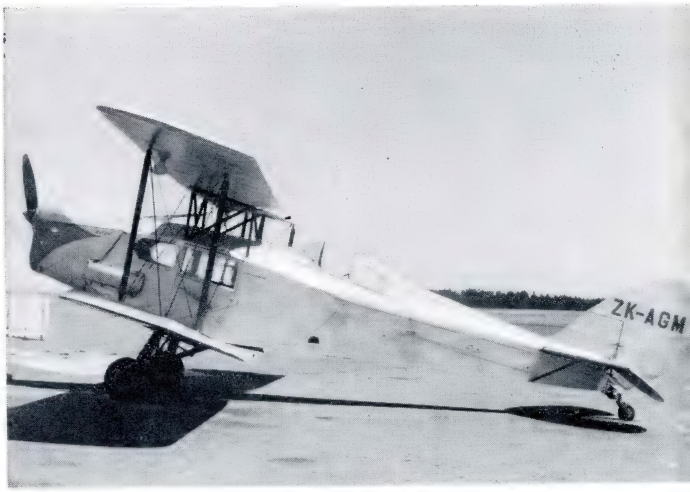
Mr. D. A. Patterson, the general manager of the National Airways Corporation

of £2 million — a sum indicating the special problems facing an airline so distant from the principal manufacturers.

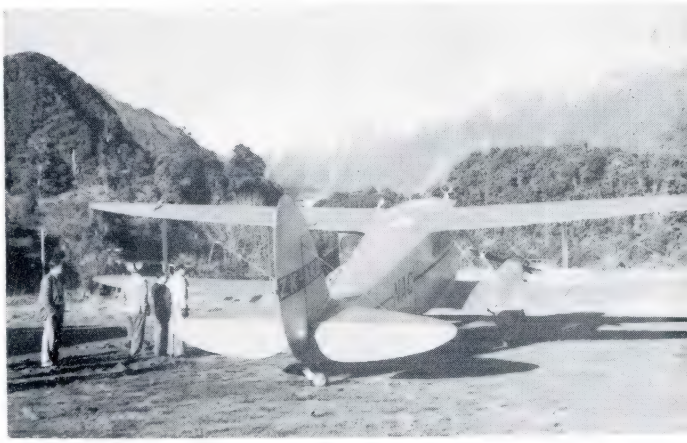
It was not until 1956 — the tenth anniversary of NAC — that flights on Sundays were introduced into New Zealand. Originally confined to the main trunk route, they have now been extended to cover the entire network of 23 destinations.

It was in 1956, too, that NAC decided to buy three Viscount 807 airliners for delivery during the two following years. This order was subsequently increased to four.

To serve smaller centres with unsealed runways the corporation continues to use DC3's, replacing these as sealed airports are completed with the fleet of Friendships. Eight of these 40-seater airliners were delivered between December, 1960, and December, 1961, and a ninth has recently entered service.



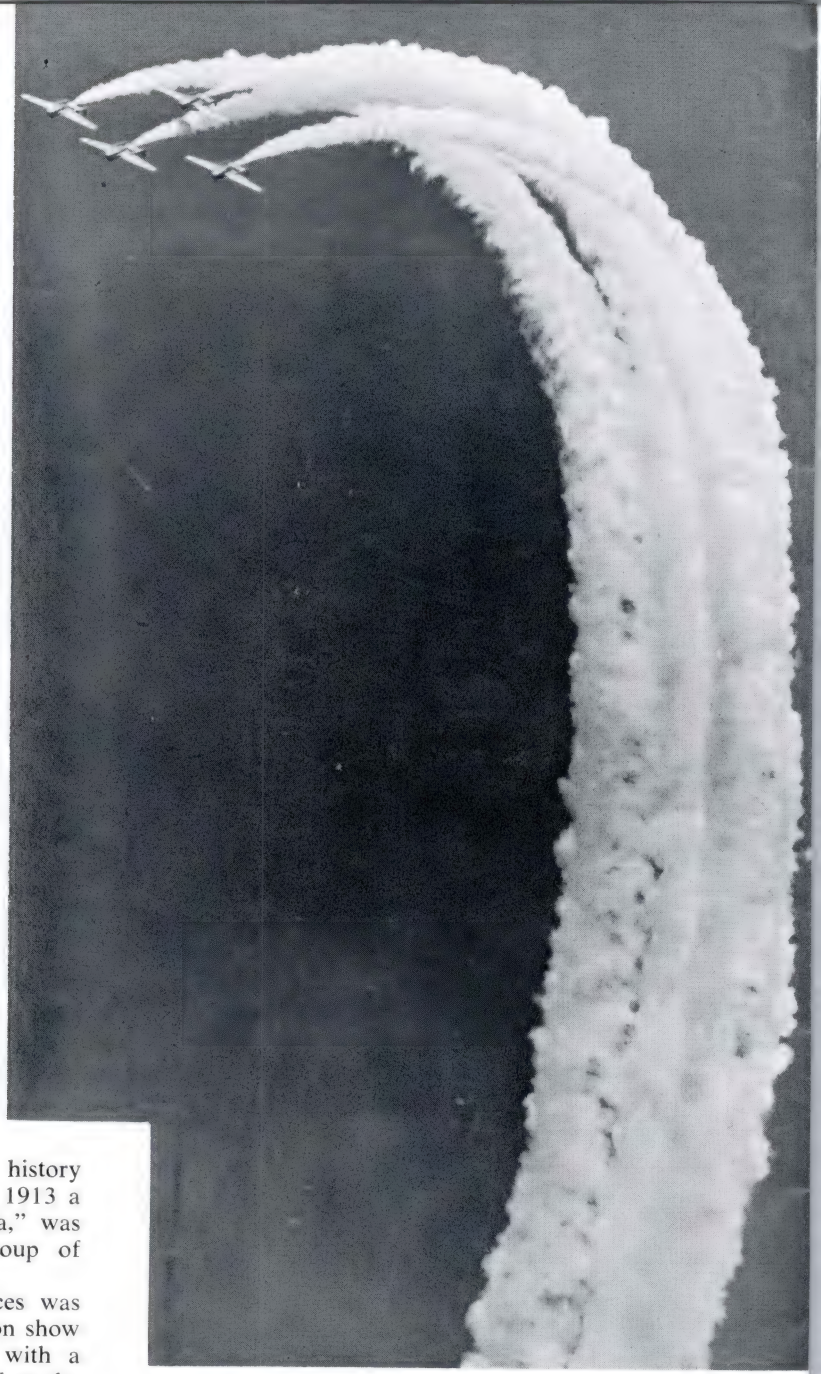
A Fox Moth



A Dominie at the Franz Josef Glacier

One of the Corporation's fleet of Fokker Friendships

ROYAL NEW ZEALAND AIR FORCE



Vampires show their paces

NEW ZEALAND'S military aviation history had an inauspicious start when in 1913 a Bleriot-type monoplane, "Britannia," was presented to the Government by a group of patriotic British businessmen..

But no member of the defence forces was competent to fly or service it. It was put on show and made several demonstration flights with a civilian pilot and was returned to England at the outbreak of the war in 1914.

After the war the British Government had a large surplus of aircraft and offered 100 to each Dominion. After some delays 33 machines were shipped out. six of which were stationed at Sockburn near Christchurch for military purposes and the remainder were lent to private flying enterprises.

It was not until 1923 that the Dominion possessed any sort of organised air arm when the New Zealand Aviation Corps was formed as part of the Army. Its strength was two officers and two airmen. In the same year an Air Force reserve of 72 ex-Service pilots was enrolled.

In 1923 the aviation corps became the New Zealand Permanent Air Force and the New Zealand Air Force was established as part of the territorial forces.

An area of 167 acres was purchased at Hobsonville in 1925 and four years later a sea-plane base and airfield were established there.

A group of wartime Kittyhawk fighter pilots at Whenuapai during training.

In 1935 His Majesty the King granted permission to the permanent air force to change its name to the Royal New Zealand Air Force.

The middle 'thirties showed a gradual worsening of the international situation and in 1935 the Service was strengthened by the addition of 12 Vickers Vildebeeste bombers.

Bomber reconnaissance flights were established at Wigram (near Christchurch) and Hobsonville to become the first properly constituted operational unit of the RNZAF.

New training aircraft were ordered and by 1936 the Air Force was definitely emerging from the state of virtual inertia in which it had been for its first 13 years. Its strength was now 20 officers and 107 airmen.

Wing Commander the Hon. R. Cochrane was sent to New Zealand from the Royal Air Force to report on the requirements for an adequate air defence scheme.

He suggested that the RNZAF should be capable of countering raids by cruisers and submarines and by aircraft carried by such ships. He recommended that it should maintain two medium bomber squadrons capable of locating and attacking enemy raiders and which should have sufficient range to reach bases in the South Pacific or fly to Singapore should the need arise.

Wing Commander Cochrane became the first Chief of Air Staff of the RNZAF in 1937.

It is interesting to review the aircraft strength at that time. There were 12 Vildebeeste bombers, two Gloster Grebe fighters, four Gipsy Moth trainers, three Hawker Tomtit trainers, four Avro 626 trainers, two Fairey bombers, one Puss Moth communications aircraft and one Saro Cutty Sark amphibian.

But extensive reorganisation was carried out, and by 1939 four territorial squadrons were established, aero clubs were assisting with flying training, Whenuapai and Ohakea bases were

Continued on page 27

Part of the RNZAF fleet of aircraft lined up at Rongotai aerodrome in June, 1938, for the first military air pageant

Air New Zealand and over
90 other International Airlines
carry Rothmans King Size Filter

ROTHMANS KING SIZE REALLY SATISFIES

There is a good reason why Rothmans
is the world's largest selling —
most wanted — King Size Virginia.
It's simply that Rothmans
extra length, finer filter, and
the best tobacco money can buy,
give you a cooler, smoother,
more satisfying taste.
Try them yourself and you'll agree . . .

KS 137

Hudson bombers at an island base in 1943

nearing completion, 30 Wellington bombers were due and obsolescent operational aircraft had been bought for training purposes.

A few days before the outbreak of war the New Zealand Wellingtons and the RNZAF crews were offered to the Royal Air Force and thus the famous No. 75 (NZ) Squadron was formed. This, however, resulted in New Zealand being without any modern operational aircraft until the arrival of the first Lockheed Hudsons in 1941.

The air defence of the country was in the meantime entrusted to the ageing Vildebeestes, Vincents, Hinds, Baffins, Gordons and converted civil aircraft with which the RNZAF was equipped.

During the early years of the war the primary task of the RNZAF was to train aircrew for the Royal Air Force under the Empire Air Training Scheme, New Zealand undertaking to train fully 880 pilots a year and start the training of 520 pilots, 546 observers and 936 air gunners for ultimate training in Canada.

When the task was completed at the end of the war 12,000 aircrew had passed through RNZAF training schools.

On the home front, the strength of the RNZAF had grown from 756 regular officers and airmen and 306 territorials to over 10,500 by the end of 1941.

With the entry of Japan into the war New Zealand itself was faced with the need to defend its shores against a new and closer threat. There were few operational aircraft until late in 1942 when a steady trickle of lend-lease bombers and fighters began to arrive.

Operational squadrons were formed, first for home defence and later for operations with the United States Air Forces in the Pacific campaigns which ended with the defeat of Japan.

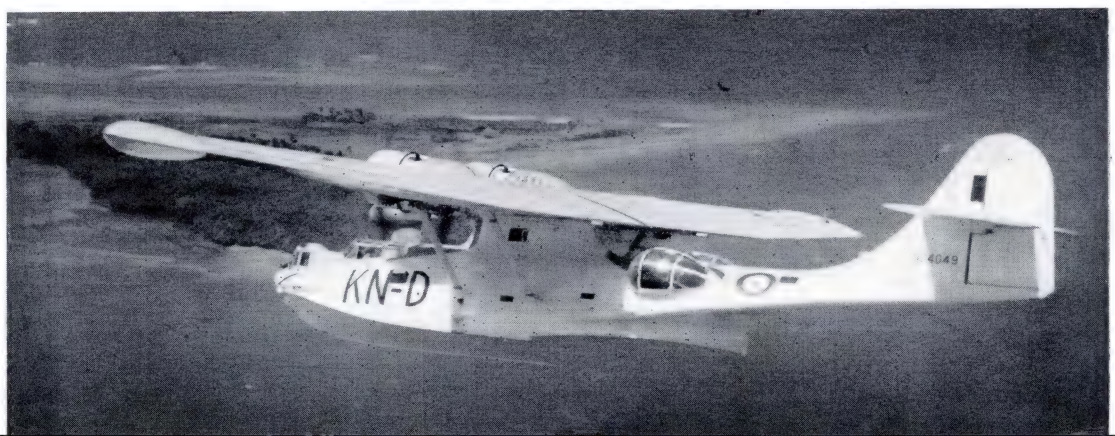
Operating first with Kittyhawk fighters and Singapore flying-boats and later with Ventura, Corsair, Dauntless, Avenger and Catalina aircraft, the squadrons worked with considerable success from bases in Fiji, New Hebrides, Solomon Islands, New Britain and the Admiralty Islands.

New Zealand squadrons in the RAF totalled seven, operating at first from England itself and later in other areas, flying heavy and medium bombers, fighters, torpedo bombers and flying-boats.

Reorganisation followed the conclusion of the war, and by the end of 1946 stations were operating at Lauthala Bay, in Fiji (No. 5 Flying-boat Squadron), Whenuapai (Nos. 40 and 41 Transport Squadrons), Hobsonville (all technical training and a detached flight of No. 5 Squadron), Ohakea (No. 75 Bomber Squadron and operational flying training) and Wigram (flying training).

Continued on page 29

A Catalina flying-boat from the Lauthala Bay base. These were in service between 1943 and 1954



Welcome Aboard!

Get acquainted with **Air New Zealand's** wonderful new Douglas DC-8 Jetliners. They'll introduce you to a new level of travel comfort...a unique combination of high speed, flying serenity and passenger services, on routes to Australia, the Orient and North America.

DOUGLAS

Royal Family of Jets

DA.96A

No. 14 Fighter Squadron was serving in Japan with the British Commonwealth Air Force and was there for 2½ years. In 1952, equipped with Vampire aircraft the squadron joined the RAF in Cyprus as part of the Middle East Air Force and in 1955 moved to Singapore as part of the Commonwealth Strategic Reserve to operate against terrorists in Malaya.

It was replaced in 1958 by No. 75 Squadron, which in turn came back to Ohakea in 1962, reforming as the Bomber Operational Conversion Unit. This unit has since been reconstituted as a fighter squadron armed with Vampires.

No. 41 Squadron served in Singapore from 1949 to 1951 and from 1955 to the present time. It has a detachment at Korat.

No. 5 Maritime Squadron was based at Lauthala Bay in Fiji from early in the war until this year when it was withdrawn to Hobsonville to prepare for re-equipping with Lockheed Orion anti-submarine reconnaissance aircraft. It had become the glamour squadron of the Air Force with its long list of mercy missions in the Pacific.

The RNZAF now comprises No. 5 Maritime Squadron, No. 14 Bomber Squadron, Nos. 40 and 41 Transport Squadrons, No. 75 Fighter Squadron and No. 42 Communications Squadron.

Flying training is carried out at RNZAF Station, Wigram, on Harvards and Devons, while air navigators, signallers and air engineers receive instruction there also. Advanced flying training is carried out at Ohakea.

The future holds a most challenging time for the Air Force with the recent introduction of the Hercules aircraft and the coming arrival of the Orions and the helicopters.

The RNZAF will have five of the sub-hunting Lockheed P3 Orions and delivery is expected late in 1966. The versatility and value of these sophisticated search aircraft were ably demonstrated in July of 1965 when two United States Navy aircraft participated in combined exercises with significant success.

Their arrival will spell the end of the faithful flying-boat era.

A new battlefield support unit results from the purchase of five general-purpose military helicopters and six reconnaissance helicopters. The base is the RNZAF station, Hobsonville.

The Bell UH1D Iroquois is described as an armed tactical transport. The smaller machine is the 47G Sioux.

Two of the latest aircraft to be ordered: the Bell 47G helicopter (above) and the Lockheed P3 Orion maritime reconnaissance aircraft

JETSPEEK SPOKEN HERE . . . Zoom . . . zowweeee . . . eeeeeeeeeooooooowwwwww . . . The sound of a small boy playing with his toy jet; the sound of jetspeek. But little boys—like airports—grow up. Small boys become jet captains. Use a different sort of jetspeek. Air ports become International. Take the biggest jets. Today Mangere comes of age. Plugs into the international network of jet airports. Puts New Zealand on the map.

ANSETT-ANA welcomes Mangere Airport to the International Jet Network

ANSETT-ANA Australia's Golden Jet Airline

Air New Zealand—General Sales Agents in New Zealand and Pacific Islands

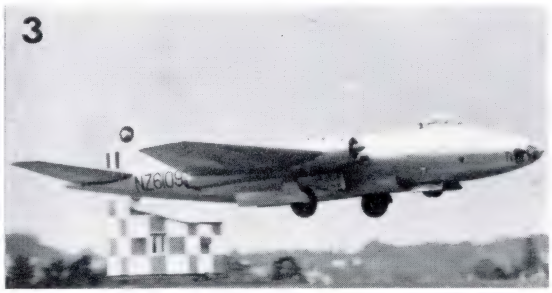
W3180

1

2

RNZAF on display

These aircraft are scheduled to appear at the pageant: (1) Vampires, (2) Hercules, (3) Canberra, (4) Harvard, (5) Bristol Freighters



3

4

5

3 EXCITING WAYS TO ENJOY NEW ZEALAND

MAGIC CARPET

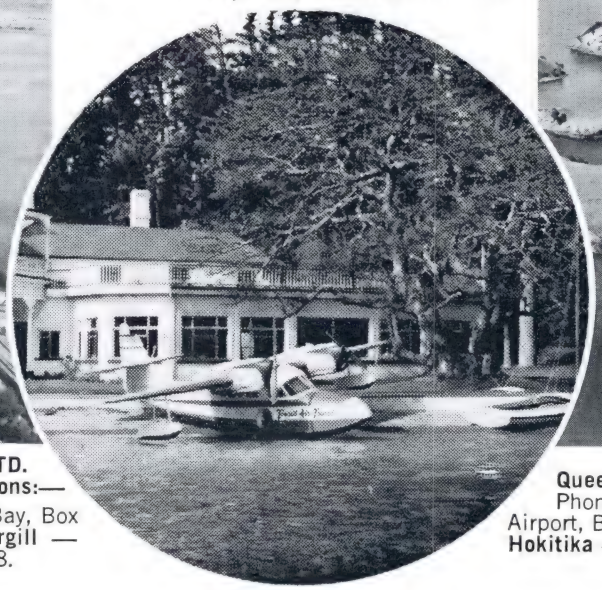
SCENIC FLIGHTS OVER AUCKLAND CITY AND BRIDGE

CHARTER FLIGHTS

TO THE SCENIC WONDERLANDS

NORTH ISLAND. Bay of Islands, Rotorua, Taupo, Waitomo Caves.

SOUTH ISLAND. Franz Josef Glacier, Milford Sound, Deep Cove, Lake Manapouri, Stewart Island.



DAILY FLIGHTS

TO THE ISLES OF THE GULF

- ★ **WAIHEKE ISLAND**
- ★ **GT. BARRIER ISLAND**
- ★ **KAWAU ISLAND**
- ★ **PAKATOA ISLAND**

N.Z. TOURIST AIR TRAVEL LTD. have the following Base locations:—

Auckland City — Mechanics Bay, Box 2201, Phone 45-900; **Invercargill** — Airport, Box 860, Phone 82-168.

Queenstown — Airport, Box 121, Phone 525; **Te Anau** — Lake Airport, Box 49, Phone 11-M, Te Anau; **Hokitika** — Airport, Box 106, Ph. 134.

NEW ZEALAND

Tourist Air Travel LIMITED

"A shower of spray and we're away"

ROYAL AUSTRALIAN AIR FORCE

Three Neptune reconnaissance aircraft of the Royal Australian Air Force in formation.

UNFORTUNATELY committed to an active role at present, the Royal Australian Air Force representation has of necessity been restricted.

The most interesting appearance will be that of the Lockheed Neptune. It is an anti-submarine and maritime reconnaissance aircraft and fulfills a role similar to the recently-ordered Lockheed Orions for the Royal New Zealand Air Force.

The Neptune has been in service for over 10 years and one last visited New Zealand in 1955 for the Ohakea Air Force Day display.

In support, the RAAF is sending a Lockheed Hercules, being a slightly earlier model than the RNZAF ones. Canberra bombers from the RAAF are also expected to appear.

Canadian Pacific AIRLINES

SUPER DC-8 JET EMPRESSES

†now link New Zealand with

HAWAII • CANADA • THE ORIENT • EUROPE • MEXICO • SOUTH AMERICA

Auckland today . . . North America the Continent and *Britain tomorrow! Internationally renowned Canadian Pacific Airlines now link New Zealand with their world-wide Super DC-8 Jet Empress Service!

Honolulu . . Vancouver . . Amsterdam . . Rome . . Tokyo . . Hong Kong . . Buenos Aires . . it's a small world when you fly Canadian Pacific — and it's so comfortable jetting there when you enjoy the superb Empress service that's made Canadian Pacific famous over five Continents — velvet smooth all the way! Fly now — pay later if you wish. Air Cargo carried on all flights — space reserved.

†subject to gov't approval. *By connecting carrier from Amsterdam.

Enjoy a Bonanza in VANCOUVER **"TWO FOR THE PRICE OF ONE!"** The Vancouver Visitors' Bureau offers transitting passengers special half price privileges — hotels, tours, entertainments etc.

SEE YOUR TRAVEL AGENT. . . and

FLY Canadian Pacific AIRLINES

(Incorporated in Canada)

CANADIAN PACIFIC - TRAINS / TRUCKS / SHIPS / PLANES / HOTELS / TELECOMMUNICATIONS / WORLD'S MOST COMPLETE TRANSPORTATION SYSTEM

32—34 Quay St., Auckland. 21 Brandon St., Wellington
See your local Travel Agent for full information
UNION STEAM SHIP CO. of N.Z. Ltd., General Agents.

UNITED STATES AIR FORCE

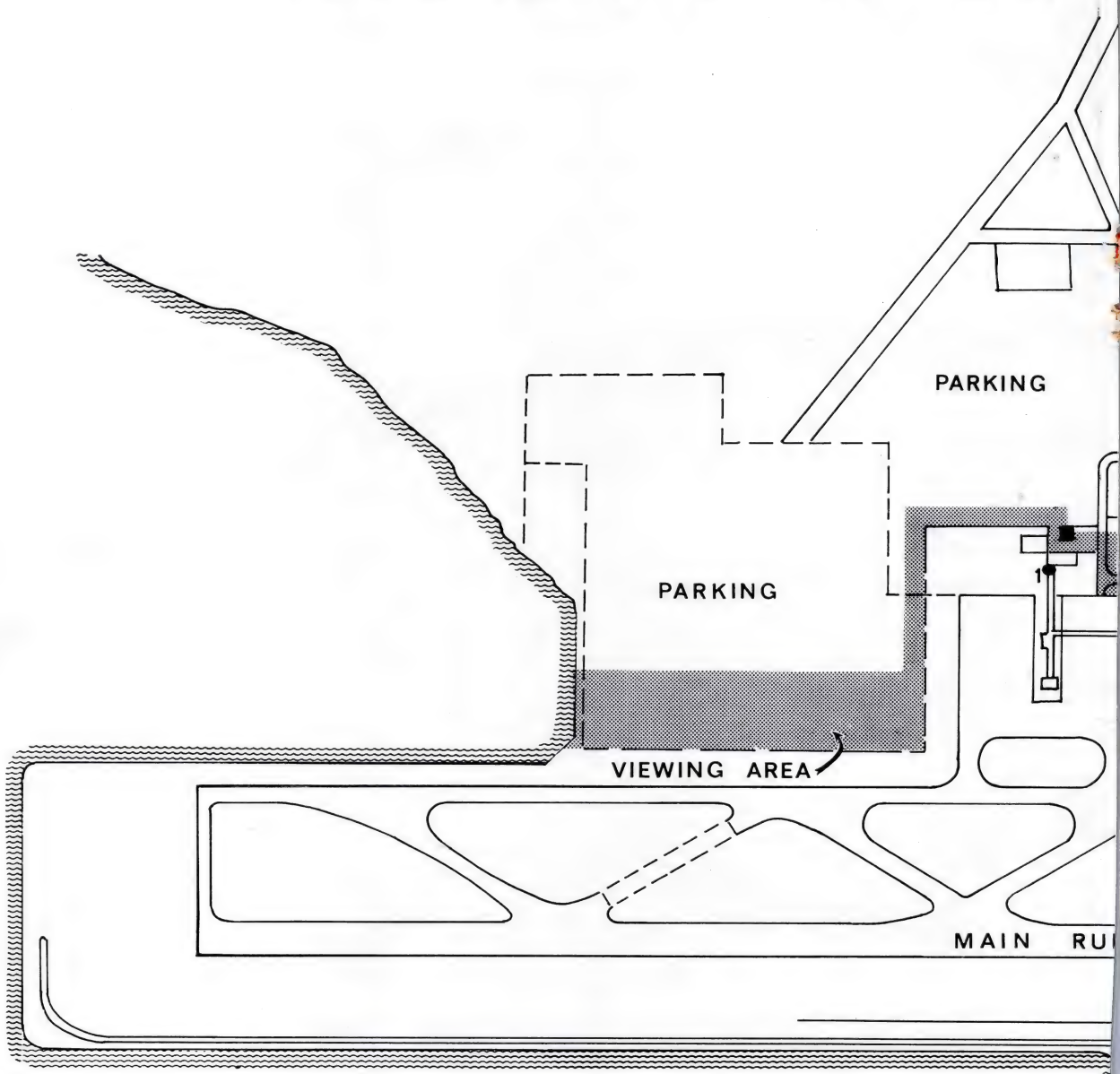
MORE than usual interest will be shown in the presentation by the United States Air Force of the Phantom fighter as it could one day form part of the Royal New Zealand Air Force.

Made by the McDonnell Aircraft Corporation, the F4C, which can fly in excess of 1500 miles an hour, is the standard fighter used for close support and attack duties with the Tactical Air Command. Another version has been adapted for reconnaissance duties.

The Boeing KC35 tanker will again be appearing in New Zealand. Structurally this aircraft is similar to the Boeing 707 commercial airliner, but with a smaller diameter fuselage.

The Phantom fighter (above) and the KC135 jet tanker.

AUCKLAND INTERN

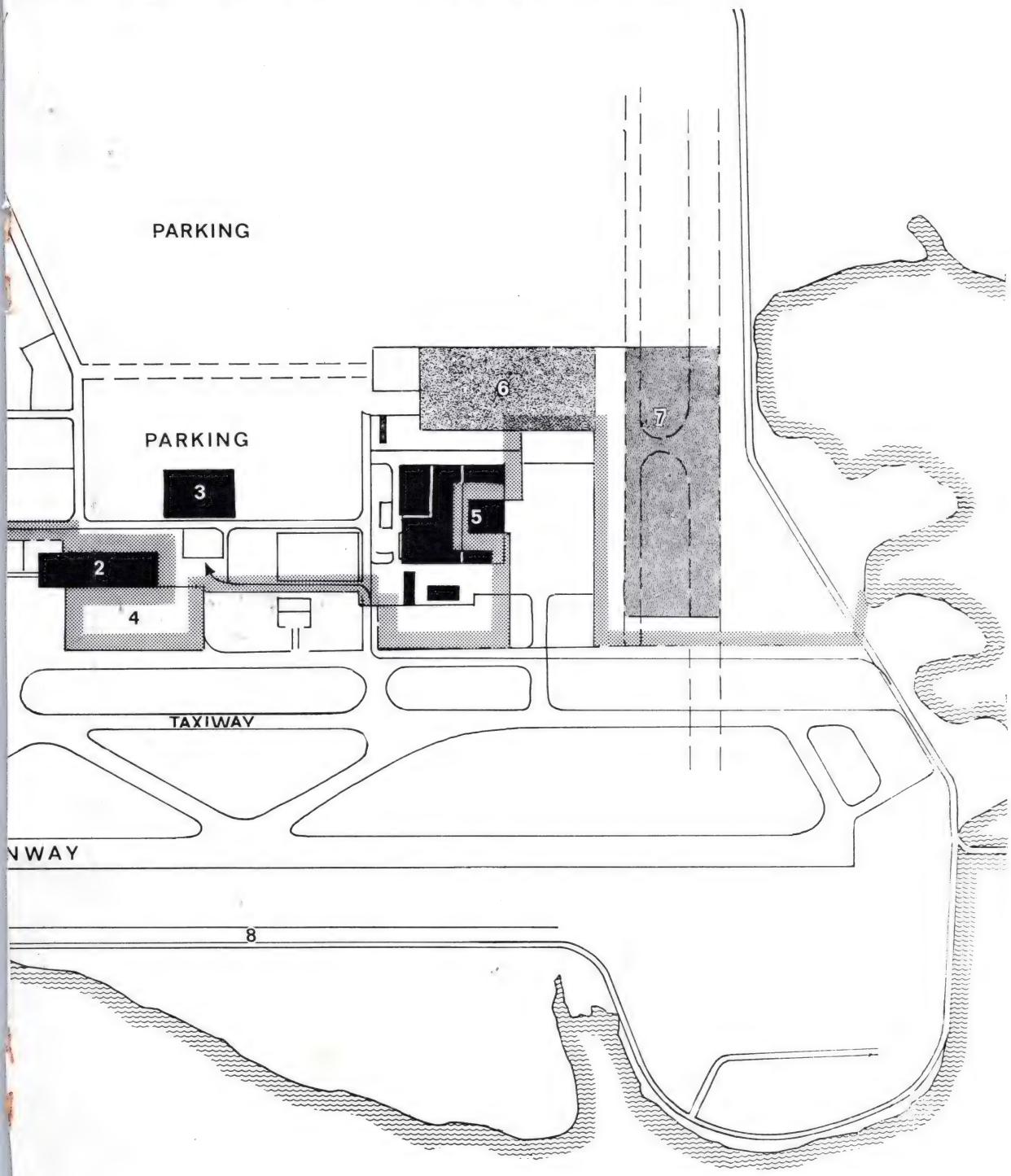


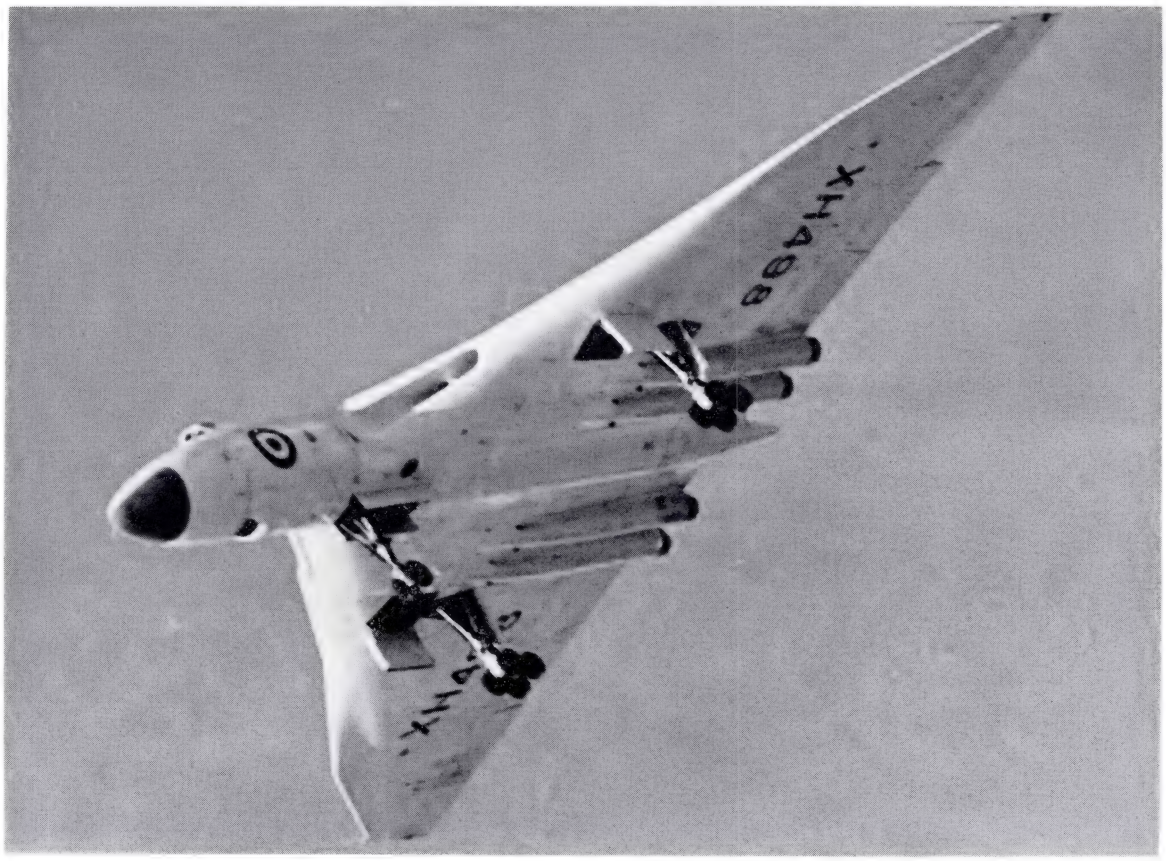
KEY :

1 CONTROL TOWER.
2 TERMINAL BUILDING.
3 CARGO BUILDING.
4 AIRCRAFT DISPLAY AREA.
5 STATIC DISPLAY AREA.
6 AIRCRAFT DISPLAY AREA.
7 AIRCRAFT DISPLAY AREA.
8 LIGHT AIRCRAFT PARKING ZONE.

PUBLIC AREA LIMITS INDICATED BY SHADING

ATIONAL AIRPORT





A Vulcan bomber in flight at Ohakea in 1960.

ROYAL AIR FORCE

THE Royal Air Force should be represented by a wide variety of aircraft which demonstrate many aspects of their activities.

Always a major attraction because of its size and unusual shape is the V-bomber, the Vulcan.

These have appeared in previous air displays in New Zealand, but they never fail to attract as they swoop gracefully overhead or pass by at high speed. They comprise one of the main strike forces of the RAF.

The Shackleton is the RAF counterpart of the RNZAF Orions and is used in anti-submarine roles, being equipped to detect, track and attack.

Another interesting appearance will be that of the gigantic Belfast military heavy transport. Capable of carrying more than 200 men, this aircraft has been designed specifically to transport heavy freight, including the largest types of guns, vehicles and guided missiles. Its maximum payload is 80,000lb.

The Andover is the military version of the Hawker Siddeley civil transport, the 748. With the RAF, this machine is being used for special passenger-carrying duties. These aircraft have also been supplied to the Queen's Flight.

The aircraft likely to gain most attention is the British Aircraft Corporation's VC10 airliner, now in service with the Royal Air Force. This jet aircraft with its four rear-mounted engines is proving most successful on international air routes, and it is planned to have one at the opening display.

A Shackleton reconnaissance aircraft.

The short Belfast strategic freighter.

Above and left: *Two views of the Hawker Siddeley Andover.* Below: *One of the BOAC VC10 airliners, an RAF version of which is expected at the pageant.*

MUCH OF INTEREST IN STATIC DISPLAY

THE static display in and around the Air New Zealand hangar promises to present probably the most comprehensive exhibition of aeronautic and allied subjects ever presented in the Southern Hemisphere.

Aircraft manufacturers, airlines and Government departments are combining to let the public study all the latest developments in aviation and outer space investigation at present under way.

British, American, Australian and other companies have brought to Auckland many of the latest models. It is not possible to give detailed information on the various exhibits, but the details available reveal a remarkable variety in mechanical and pictorial displays.

The machining of aircraft sections out of solid metal will be featured by the **British Aircraft Corporation.** This method of construction, developed by the company, is now used in the latest types of its airliners. A montage of the corporation's activities will also be on display and there will be other examples of its products.

Four models of well-known engines will be shown by **Rolls-Royce Ltd.** These will be the Avon turbo-jet, the Dart prop-jet and the Spey turbo-fan, two of which will be motorised. The fourth is a complete RB162 lift jet engine, with an "exploded" model as well. There will also be a Continental 0-200A light aircraft piston engine and models of civil transports and V/STOL aircraft using Rolls-Royce engines.

The most impressive exhibit of **United Aircraft International** will be a full-size cutaway JT8D engine. Measuring over 12 feet long, this model will allow the public to see the inner workings of one of the latest jet power plants now being installed in the Douglas DC9 and the Boeing 727 and 737 jet airliners. There will be other models of the PT6 turbo-prop engine, a Hamilton standard propeller and a turbine-engined helicopter. as well as a pictorial display.

The **Douglas Aircraft Company** exhibit theme pays tribute to the Dominion's Sir Ernest Rutherford for his pioneer work in nuclear physics and

Continued on page 43

The North American Mustang fighter, a well-known wartime aircraft. A New Zealand-owned machine is expected to give a display at the pageant.

The Ansett-ANA new Boeing 727 three-engined airliner, one of which is due to make an appearance.

points out the company's increasing interest in nuclear energy, particularly as applied to space programmes. Other examples of Douglas research and development activities are also featured. Products to be portrayed include the DC8 and DC9 airliners, the Skyhawk military jet, Delta and Saturn S-4B space boosters and manned space station.

Air New Zealand has planned a comprehensive display covering many aspects of its activities. These will include presentations of the company's growth, its air routes, communications network, flight kitchen and cabin services. The technical side will show engines of various descriptions and air cargo handling. Various sections of the airline's jet base will also be open for inspection.

The exhibit planned by the **National Airways Corporation** is designed to show that the airline is the most frequent user of the new airport, with up to 48 passenger aircraft movements each day, exceeding all other airlines combined. By displays, moving machinery, photographs and statistics, the corporation will demonstrate the size of its activities.

NAC is planning to provide a small area in its exhibit where children who are temporarily lost in the hangar or surrounding areas can be looked after by hostesses.

The **Qantas** display will tell the story of the company's world-wide operations — in-flight services, maintenance of fleet and office facilities. The display will include a short history of the phenomenal growth of the airline from a three-man operation to its present size.

Four courts in the shape of an arcade of shops will be an unusual feature of the **British Overseas Airways Corporation display.** Each will feature some country of destination of the airline, with attendants in national costume. A six-foot model of a Boeing 707 airliner will also be shown.

A 16-foot section model of a Boeing 707 airliner will dominate the exhibit of **Pan American Airways.** There will also be a 7-foot model of the supersonic Concord airliner and a series of photographs showing the airline's historical association with New Zealand.

Continued on page 45

A Cessna 170, a popular aero club machine to be featured in the light aircraft section.

You can hardly fly anywhere without Mobil's help!

Literally since man's first powered flight, Mobil have been major suppliers of aviation products throughout the world. Every New Zealand airline relies on Mobil for something. Some New Zealand airlines look to Mobil for everything. So does our illustrious "guest", Operation Deepfreeze — Mobil fuel, hydraulic fluid, oils, greases . . . the lot! With Air New Zealand, Mobil are exclusive suppliers of special turbo oils. Nearly 40% of all the fuel NAC uses is Mobil. With Straits Air Freight Express it's 100%. Same with the SPANZ and Mt. Cook Tourist DC 3s. To Mobil, already New Zealand's biggest overall suppliers of aviation fuels and lubricants, the Auckland International Airport means still further opportunities to serve the world's great airlines. When quality is all-important, the experts — military as well as civilian — choose Mobil!

Mobil

THE NAME YOU CAN TRUST

Mobil Oil New Zealand Limited

A pictorial display featuring the attractions of Canada will form part of the **Canadian Pacific Air Lines** section. The world route pattern of the company will also be shown.

Of unusual interest will be the realistic model of Dutch land reclamation which **KLM-Royal Dutch Airlines** is planning to have on display. Known as the Delta Plan, it was brought into being after the disastrous floods of February, 1953. The ultimate aim is to close in four tidal estuaries and reclaim an area of 10,500 square miles. A large scale model of a DC8 airliner will also be exhibited.

A huge 48-foot long mural depicting a map of the world will be the centrepiece for the **UTA-Air France** stand. The airline's routes will be illuminated and operated from a control panel by the public. There will also be aircraft models and films.

Models of a DC8 and Caravelle airliners and the small Macchi will feature in the **Alitalia** exhibit. A pictorial display will emphasise Italian industry, and the Fiat company will also have a display here.

Ansett-ANA will feature its newest aircraft, the Sikorsky helicopter, the Boeing 727 and the recently-purchased Douglas DC9, using models and pictorial displays.

Trans-Australia Airlines plans to emphasise in its display areas the airline serves as well as technical details of its operations.

The comprehensive layout of the **Royal New Zealand Air Force** will have a large model of the C130 Hercules, electrically controlled training panels and other electrical and radio equipment. There will be an auto-pilot display and other interesting technical exhibits. Other facets of Air Force activities will be represented.

"United States Progress in Space" is the theme of the display from the **United States Information Agency.** By models and pictorially it will show U.S.A. achievements in space exploration and its integration with other nations on these projects. Models will show six spacecraft—Mariner, OSO, Nimbus, Mercury, Gemini and Apollo.

Amalgamated Wireless Australasia Ltd will identify itself with the radio and navigation aids at the airport, and in a special exhibit close to the control tower plans to monitor the surveillance radar to enable the public to see it in action. Other technical equipment will also be on view.

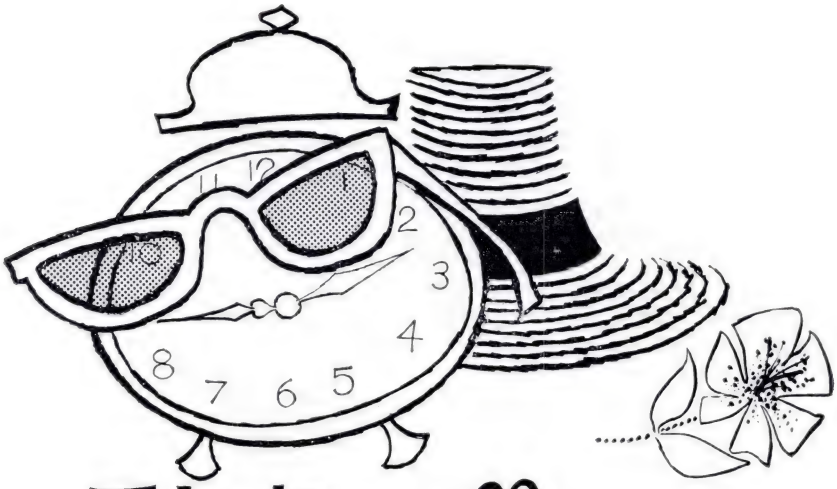
Seabrook Fowlds Ltd expects to have on display the Bell rocket belt team — men who propel themselves through the air by means of attached rocket engines. The company also expects to exhibit a Bell helicopter and magnetic crack-testing equipment.

Model hovercraft in action will be a feature of the display by **BP New Zealand Ltd.** Large mounted pictures will show aspects of New Zealand aviation. The latest tanker refuelling equipment will be included.

Ace Freighters, an English all-freight airline, is planning an aeronautic display.

Representatives of light aircraft manufacturers will have machines on static display when they are not participating in any flying exhibitions.

Royal Air Force Argosies expected to be seen in a paratroop dropping exhibition.



Take time off

TO SEE NEW ZEALAND FIRST

Thinking of a holiday, a tour? Our experienced staff are well acquainted with the attractions of the scenic and holiday resorts of New Zealand. No matter how short or how long the time you have in mind we'll gladly give you impartial advice and make all reservations for you. If you like meeting people, making new friends we can book you on a coach tour. If you wish to travel independently, we'll plan an itinerary for you, arrange reservation for hotels or motels, for transport by road, rail, air, sea or rental car services, and issue all the necessary tickets. Whether you wish to travel for business or for pleasure, we are here to help you.

Government Tourist Bureau

NEW ZEALAND

GOVERNMENT TOURIST BUREAU

YOUR NATIONAL TRAVEL AGENT

Branches and Agencies everywhere

The New Zealand-built Airtruck (top left), the Grumman Ag-Cat (lower left) and a Beaver in action (above).

TOP DRESSING AIRCRAFT IN ACTION

LARGELY unheralded and usually noticed as just a cloud of dust on the horizon, the topdressing pilot is a man of unusual and special abilities, operating as he does from one of the hundreds of small farm air strips and flying over difficult terrain.

An opportunity to see at close quarters how these men do their job will be given those attending the pageant, for the Aviation Industry Association is planning a programme which will do the industry full justice.

It is bound to be a spectacular display because these pilots have to fly at such low levels and carry out aerobatic manoeuvres.

About a dozen different types from locally-owned topdressing firms are scheduled to line up for the display .

Probably the oldest type still in commission is the De Havilland Tiger Moth, used now only for aerial spraying work.

Of the 200-odd topdressing aircraft operating in New Zealand at the present time, probably the best known are the Fletcher FU 24 and the Cessna 185 machines. Then there are the De Havilland Beavers and Piper Pawnees.

Of more spectacular interest is the Dakota, which can carry 5 tons, and the Lodestar with a payload of 3½ tons.

Two types from Australia, two from the United States of America and the New Zealand-made Waitomo Aircraft Company's Airtruck complete the line-up.

The Australian machines are the Yeoman Cropmaster and the Commonwealth Aircraft Corporation's Ceres. The latest importation is the unusually-designed Grumman Ag-Cat.

Another new aircraft now under production in the United States of America is the Snow S-2D and has just been introduced into the country.

The lighter type of aircraft can carry loads of up to a ton and can spread between 7 and 20 tons an hour.

The bigger machines are used for longer distances and their economic range is up to 35 miles.

Unfortunately the pageant has occurred at the busiest period of the year for the topdressing companies when all their resources are strained to the limit. However, a representative display is promised.

INDUSTRY SURVEY page 53

THE EMPHASIS ON EXCELLENCE

HOTEL ROYAL INTERNATIONAL

Luxuriously furnished, air-conditioned public rooms featuring natural New Zealand stone and rich panelling of native timbers. Every bedroom has its own bathroom, telephone, TV, radio, quiet soundproofing, and individually controlled central heating. Accommodation de luxe, and within only a hundred yards of Auckland's Queen Street. Telephone 21-359.

Hotel De Brett

Dine at De Brett's in luxurious comfort. Enjoy the warm hospitality . . . the superb cuisine! Reserve a table at De Brett's for your mid-day or evening meal, and enjoy the fine dishes our chefs have prepared for you. Hotel De Brett offers first-class accommodation in Shortland St, handy to central Queen Street. Telephone 34-874.

DB HOTELS–OWNED AND OPERATED BY
DOMINION BREWERIES LIMITED
BREWERS AND
BOTTLERS OF

DB WAITEMATA PRODUCTS

LIGHT AIRCRAFT DISPLAY

FEATURES MANY MODELS

THE remarkable popularity of the light aircraft sport in New Zealand, particularly in recent years, is not always obvious to the average person, but the tremendous growth of aero club activities and private flying is a sure indication that the Dominion is still one of the most air-minded countries in the world.

For that reason, the various displays to be given by these small craft at the pageant will be of great interest.

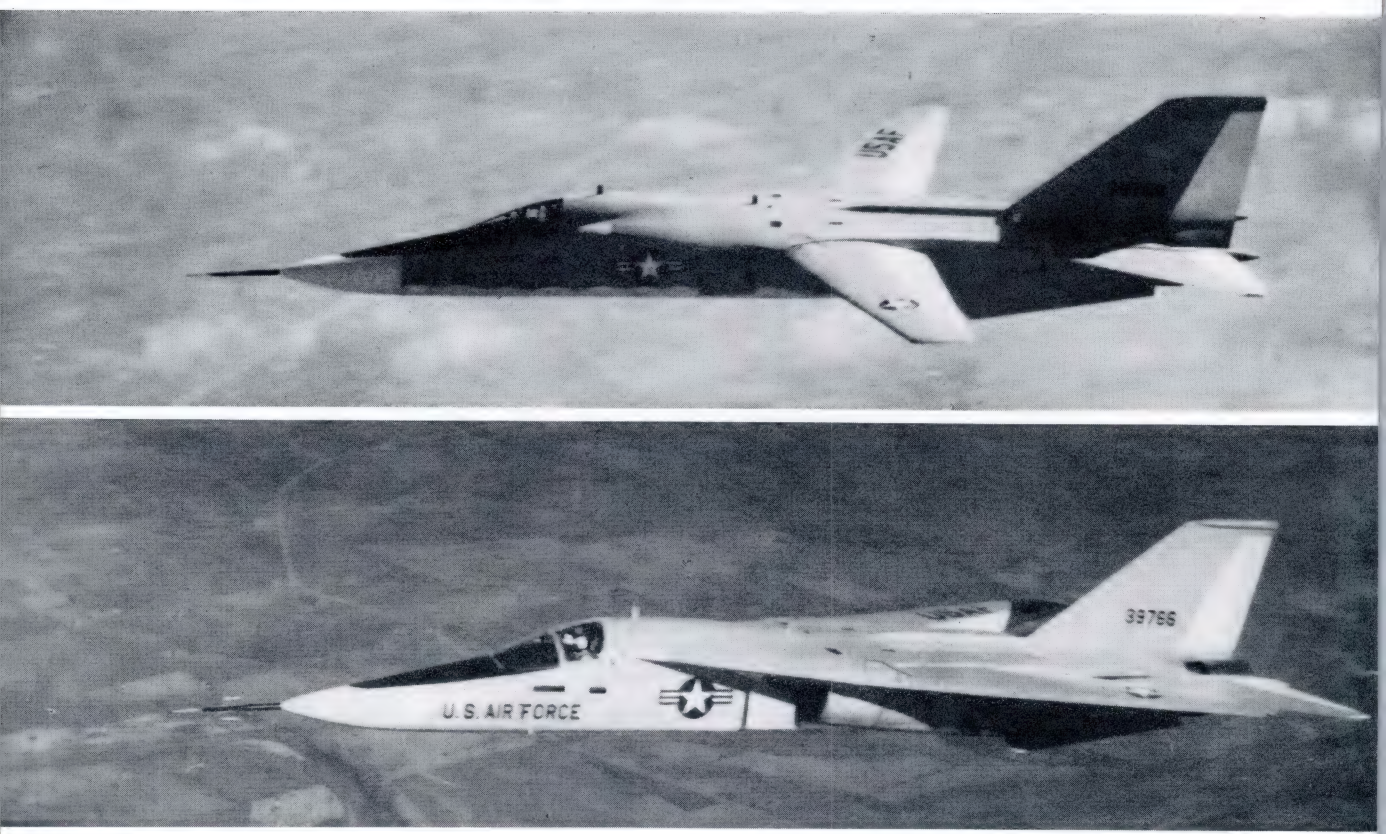
The pageant will also provide the basis for an unofficial club rally, and anything up to 150 light aircraft could arrive for the day from clubs all over New Zealand.

Great improvements in the design of these machines have characterised postwar years, although many of the old-time pilots and others still think with nostalgia of the good old days of

Continued on page 51

Above: *The well-known and ever-popular Tiger Moth.* Above right: *The French-built Morane Saulnier Rallye.* Lower right: *The Piper Cub.*

The Shape of the Future



THIS is the F-111—shown here its wings fully extended (top) for high-lift take-off and fully swept (bottom) for supersonic dash.

The ability of this new plane to vary the position of its wings in *flight* makes it unique among all the world's aircraft.

Its capabilities include flight at speeds from 150 knots to 2½ times the speed of sound. It will fly supersonically either hugging the ground or more than 10 miles high. It can take off or land in less than 3,000 feet from rough tactical airfields.

General Dynamics Corporation is building the F-111 for the United States Air Force and for the Royal Australian Air Force.

GENERAL DYNAMICS

The Australian-constructed Victa Airtourer.

the Tiger Moth and other similar vintage machines.

To enable spectators to compare the craft and study the changes, the organisers have attempted to produce at the pageant a kind of "aircraft through the ages" display.

And some of these old machines will certainly provide interesting contrasts.

The initial aircraft now on the New Zealand register is an Avro Avian, owned by Mr K. C. Trillo, of Wellington. Bought in a non-airworthy condition, it is being completely rebuilt — a vintage car of the air. This machine it is hoped will be ready for the pageant.

The DH82 — the old familiar Tiger Moth — as an ab initio trainer was probably responsible for the production of more pilots than any other machine. It, too, will be seen in action.

Other historic types lined up to appear at the display are the Rearwin, Percival Proctor, Miles Magister and the Piper Cub which virtually took over the training role from the hardy Moth.

The Morane Saulnier Rallye represented another development in the history of light aviation here, and the latest aircraft to meet aero club needs is the Australian-manufactured Victa, first introduced in July, 1963.

During the day aircraft handling displays will be given by the various manufacturers' representatives who will take the opportunity to show off their products, and it is hoped that at least one of each of the current types now being sold will appear.

These will include the Cessna, Piper, Victa, Rallye, Sud-Aviation Horizon, Druine Turbulent, Mooney, Beechcraft Musketeer and Bolkow.

The main light aircraft display will include formation flying and aerobatics as well as a fly past by the various machines.

Aerobatics never fail to thrill both young and old, and here again a thrilling display is promised.

The Victa, Tiger Moth, Bolkow, Avian and others are expected to show their paces, although the piece de resistance will be the Czechoslovakian Zlin Trener, a world champion aerobatic aircraft.

At least 20 different types of light aircraft will be seen in action or on the ground, as many of them will be included in the static display.

The Percival Proctor, well known in early post-war years.

Aviation Aids Agriculture

NEW ZEALAND is one of the most air-minded countries in the world and this probably accounts for the fact that the aviation industry has been harnessed to boost our primary production to its present high level. And it is the continuation and expansion of this work which will lead to the future prosperity of the Dominion.

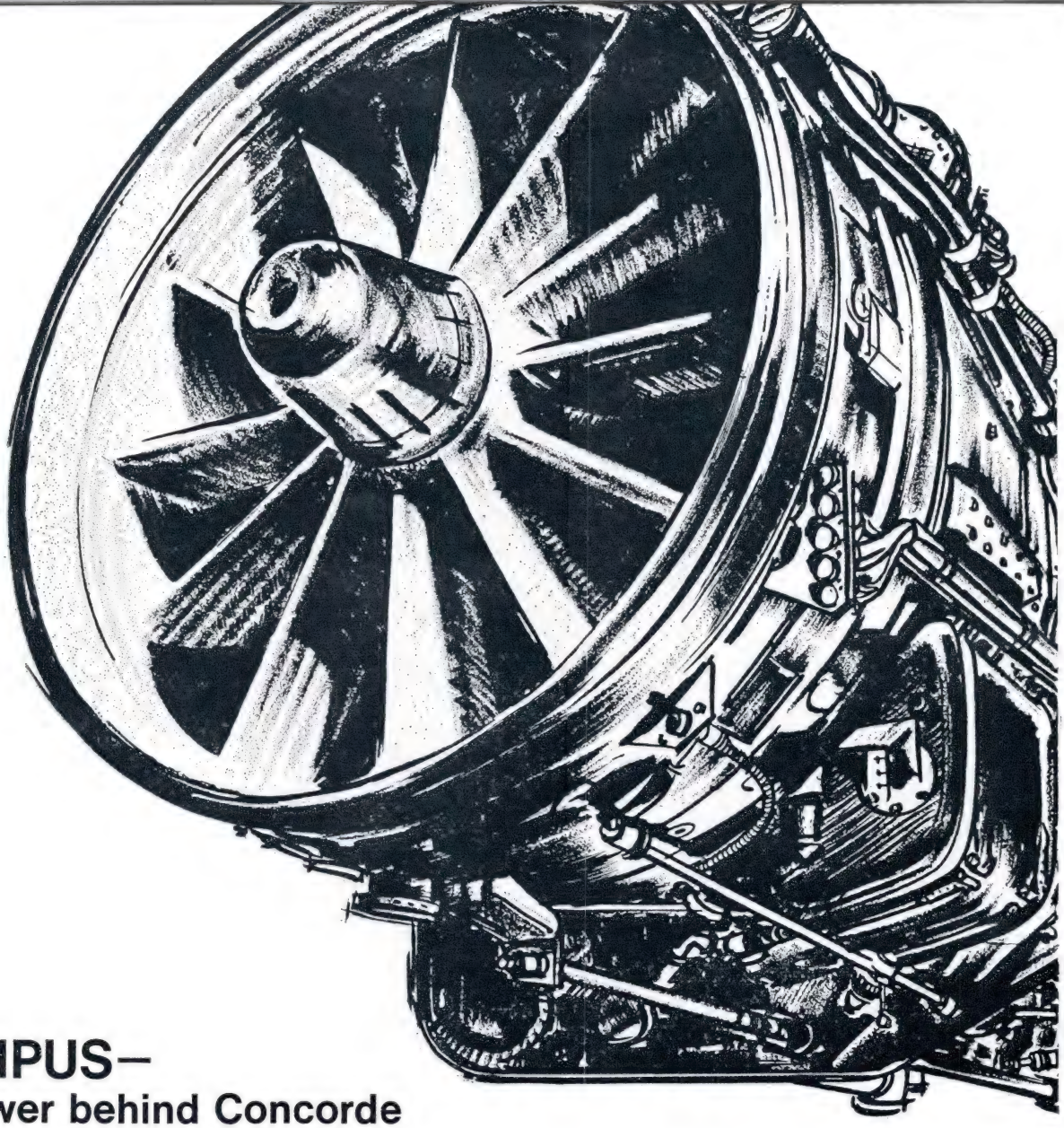
So much of the country's area is of a hilly nature that its full development can only be achieved by aerial topdressing.

Measured at sea level, the land area of New Zealand is 103,000 square miles, but including the hillside slopes which corrugate most of the country the figure would be nearer 172,000 square miles.

Of the 43.25 million acres occupied for farming, 28.5 million acres, or 66 per cent, are too steep to be worked by implements.

Before the Second World War the nature of this land, combined with a shortage of labour,

Continued on page 55



OLYMPUS–
the power behind Concorde

World's first supersonic civil engine

Will propel Concorde at Mach 2.2

OLYMPUS 593, now being developed by Bristol Siddeley and SNECMA for Concorde, will have a take-off thrust of 35,000 lb, with development potential to 40,000 lb plus.

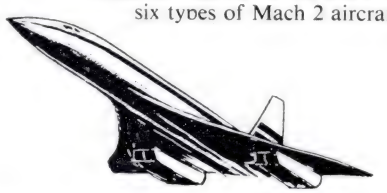
A state of the art engine, Olympus makes full use of the latest proven materials and has an outstanding thrust/weight ratio for its exacting role.

The Olympus 593 programme has been under way since July 1964. The first development engine, of 90% air-flow capacity, has already run at the take-off thrust required for the Concorde prototype.

The 593 is a civil engine, planned specifically for airline operation. Design features incorporated as a result of close collaboration with the world's leading carriers, will ensure ease of maintenance and efficient operation in commercial service.

The combined resources of two of the world's major aero-engine manufacturers form the background to Olympus 593 development.

Both Bristol Siddeley and SNECMA have significant supersonic experience and have supplied engines for no less than six types of Mach 2 aircraft.



Bristol Siddeley and SNECMA supply the power

Bristol Siddeley Engines Limited, London

La Société Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris

restricted marginal development and made fullest use of many productive acres uneconomic.

So far as is known, the first experiments in aerial application were conducted in the United States in 1918. The first flight solely for agricultural purposes was made in Canada in 1920.

It was not until 1946, when many skilled ex-pilots became available after the war, that large-scale experiments were begun in New Zealand.

The Royal New Zealand Air Force co-operated by making a Grumman Avenger torpedo-bomber available for a successful trial in which 26 cwt of superphosphate was spread over a limited area.

A backdrop of mountains near Porters Pass, in the Southern Alps, for this topdressing scene

The first commercial topdressing firm was formed in 1949.

Since then, the growth and diversification of this industry have been phenomenal.

Today, between 900,000 and one million tons of fertiliser and lime are spread annually over an area of nearly seven million acres. Only five years ago, less than 500,000 tons was spread over four million acres.

About 250 aircraft are used by some 65 operators and well over one million flights are made annually, representing more than 132,000 hours flying.

The capital investment in the agricultural aviation industry is considerable, the aircraft and ancillary equipment being worth more than £1 million.

Total capital expenditure in the past 10 years on aircraft, airstrips and experimental work has exceeded £4 million. There are now some 12,000 farm airstrips scattered over the country.

Many and diverse are the uses to which aviation in this field have been put in New Zealand.

The major one is, of course, aerial topdressing, and as has been said up to one million tons of fertiliser are now being spread annually, the actual figure for the 12 months to March 31 last being 912,689 tons.

Aerial seeding has shown a fantastic growth, and 2799 tons were dropped in the latest 12-monthly period. This is more than double the quantity in the previous year and compares with 650 tons five years ago.

Aerial spraying has increased to about 2.3 million gallons a year, most of it for weed control. Outbreaks of army worm and cricket plagues in various parts of the country have been treated in this manner.

The spreading of rabbit poison is widely practised, particularly in areas difficult of access, and last year 4630 tons of poison was dropped.

One South Island hill-country station of 120,000 acres is now being treated with poisoned carrots. At present carrying 10,500 sheep in the winter, with the elimination of the rabbits this run should carry 30,000.

Fence post and supply dropping has now been developed to a high degree of efficiency and last year 1668 tons of fencing materials were dropped. For this purpose special cradles are fitted to the aircraft and operate at the touch of a handle.

New Zealand depends more than most countries on the work and skill of these agricultural aviation pilots.

Air New Zealand first to adopt new Bendix dual radar system.

Passenger comfort and safety come first with Air New Zealand. Working closely with Bendix, the carrier has installed a virtually fail-safe radar system: two complete systems so designed that one will still operate should the other fail. New Zealand Airlines is the first scheduled airline to provide this extra margin of safety. An important "first" among progressive airlines.

The dual radar system used by Air New Zealand is just one of many notable contributions Bendix has made to scientific progress in the fields of land, sea, air and space.

Bendix aircraft equipment is distributed in New Zealand by Brown & Dureau Ltd., Auckland, Christchurch and Wellington. Call them.

THE Bendix CORPORATION

BENDIX INTERNATIONAL OPERATIONS • 605 Third Avenue • NEW YORK, N.Y., U.S.A. • 10016

THE WINGS UNFOLD

HIGHLIGHTS IN OUR AVIATION HISTORY

NEW ZEALAND'S aviation history is studded with the names of pioneers whose courage and tenacity as well as their inventiveness saw to it that this young industry progressed as it should have done in a growing country.

In fact, the first powered flight in New Zealand was at one stage thought to be the first in the world. For it was in March, 1904, near Timaru, that Mr Richard Pearse first took to the air.

Much research has gone into the question to fix the exact date of the flight because it was so close to the historic one by the Wright brothers in America.

Mr Pearse's machine was powered by a four-cylinder engine of his own design and construction, and the aircraft flew a distance of 150 yards.

Then in 1911 the well-known Walsh brothers, Leo and Vivian, made the first successful controlled flight in a Farman biplane which they had constructed.

In 1915 they flew the first flying-boat on Auckland Harbour and later formed the New Zealand Flying School in Mission Bay where they trained war pilots and built their own flying-boats.

The previous year, 1914, had seen a number of different flights in New Zealand. Joe Hammond, in a Bleriot monoplane, flew over Auckland city. J. W. H. Scotland made the first long-distance flight — from Invercargill to Gore — in a Caudron biplane, taking 38 minutes for the 48 miles. He then flew from Timaru to Christchurch, landing at Orari en route.

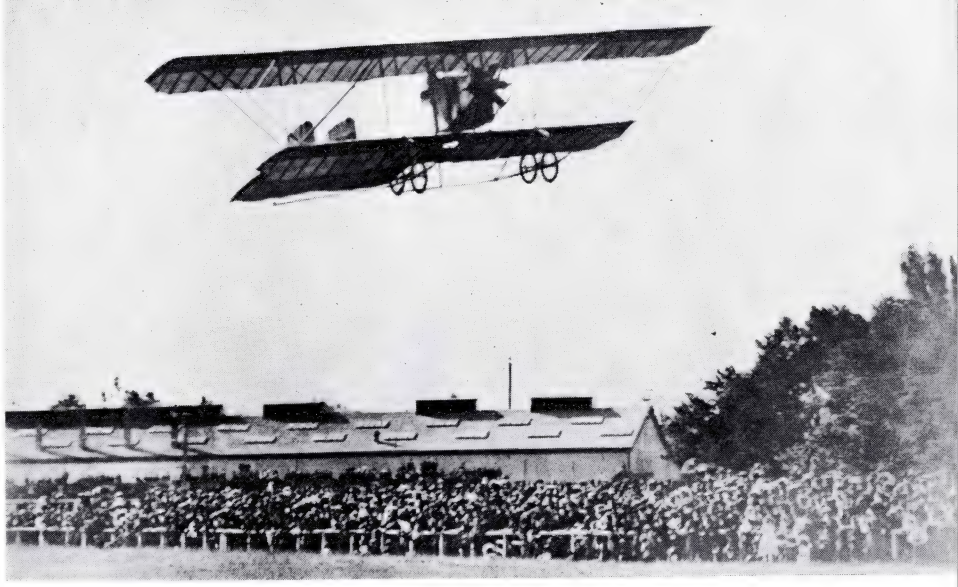
Another famous name appeared in 1917 when Sir Henry Wigram founded the Canterbury Aviation Company, using first a Caudron biplane. The company continued in operation until 1923 when it was taken over on the formation of the New Zealand Permanent Air Force which also took over the Walsh brothers' flying school a year later.

The era of the transtasman flights began in 1928 when Sir Charles Kingsford Smith and C. T. P. Ulm, later to become familiar figures on this side of the Tasman, made the first successful

Continued on page 59

The historic scene in Auckland in December, 1937, when the flying-boats of Imperial Airways and Pan American Airways were at Mechanics Bay at the same time


Reach the World's Markets Through
ACE
Rapidly expanding World markets need faster and more efficient freight services. Progressive Companies are turning more and more to Air Freight to meet delivery dates. Don't think your product can't be flown — if it will go in our freight door, you can leave the rest to us. Just ring Crawley 20211 — the World is at your fingertips.
ACE FREIGHTERS
AVIATION CHARTER ENTERPRISES LTD.
GATWICK AIRPORT
SURREY · ENGLAND
TELEPHONE: CRAWLEY 20211/2
TELEX: ACE, CRAWLEY 87221
TELEGRAMS: ACEFREIGHT · CRAWLEY



J. W. H. Scotland in his Caudron biplane during a demonstration flight at Christchurch in 1914

crossing on September 10-11. They landed at Wigram in their Fokker monoplane, the Southern Cross, after a flight lasting 14 hours 25 minutes.

They flew back to Australia in October and subsequently made several crossings together and separately, the last being in 1934.

Guy Menzies made his Tasman crossing in 1933, and in the following year the flyers included Ray Whitehead and Rex Nicholl and the team of Squadron Leader J. D. Hewitt, Flying Officer C. E. Kay and Frank Stewart in a De Havilland Rapide.

W. M. O'Hara made a crossing in 1935 and in 1936 both Jean Batten and Ernle Clarke completed solo flights from England to New Zealand.

In 1938 Flying Officer A. E. Clouston and Victor Ricketts set a record time from England in a Comet.

These immediate pre-war years saw the start of long non-stop flights in New Zealand. Hewitt flew from Dunedin to Auckland in a Gipsy Moth, taking 10 hours, in 1936, and M. C. McGregor made the flight from Invercargill to Auckland a year later.

Commercial aviation had also caught the imagination of those early pioneers. There was the Canterbury Aviation Company and the New Zealand Aero Transport Company in the very early days.

Air Travel was formed in 1930 by Squadron Leader McGregor and F. M. Clarke to make regular flights between Christchurch and Dunedin, but the venture lasted a year.

In 1935 East Coast Airways Ltd began operations between Napier and Gisborne and Cook Strait Airways started a service between Blenheim and Nelson and Wellington.

In 1935 also the Union Steam Ship Co., Ltd, formed a subsidiary, Union Airways, which a year later began services between Palmerston North and Dunedin. It extended its services to Auckland in 1937 and then took over Cook Strait Airways. After the war the company was nationalised to become the National Airways Corporation whose history is recorded elsewhere in this journal.

Then in 1937 began one of the most spectacular periods in the history of aviation with the appearance of the majestic flying-boats.

On March 29, a Pan American Airways Sikorsky flying-boat, piloted by Captain Edwin Musick landed on Auckland Harbour at the end of the first proving flight.

Not long afterward, Captain Musick lost his life in a tragic accident, and Musick Point radio station was named in his memory.

This flight began a connection with Auckland which PAA still continues. Regular flights began in 1939, but from 1941 to 1946 the service was taken over by the United States Navy.

Also in 1937 an Imperial Airways flying-boat, the Centaurus, arrived at Auckland piloted by a New Zealander, Captain J. W. Burgess.

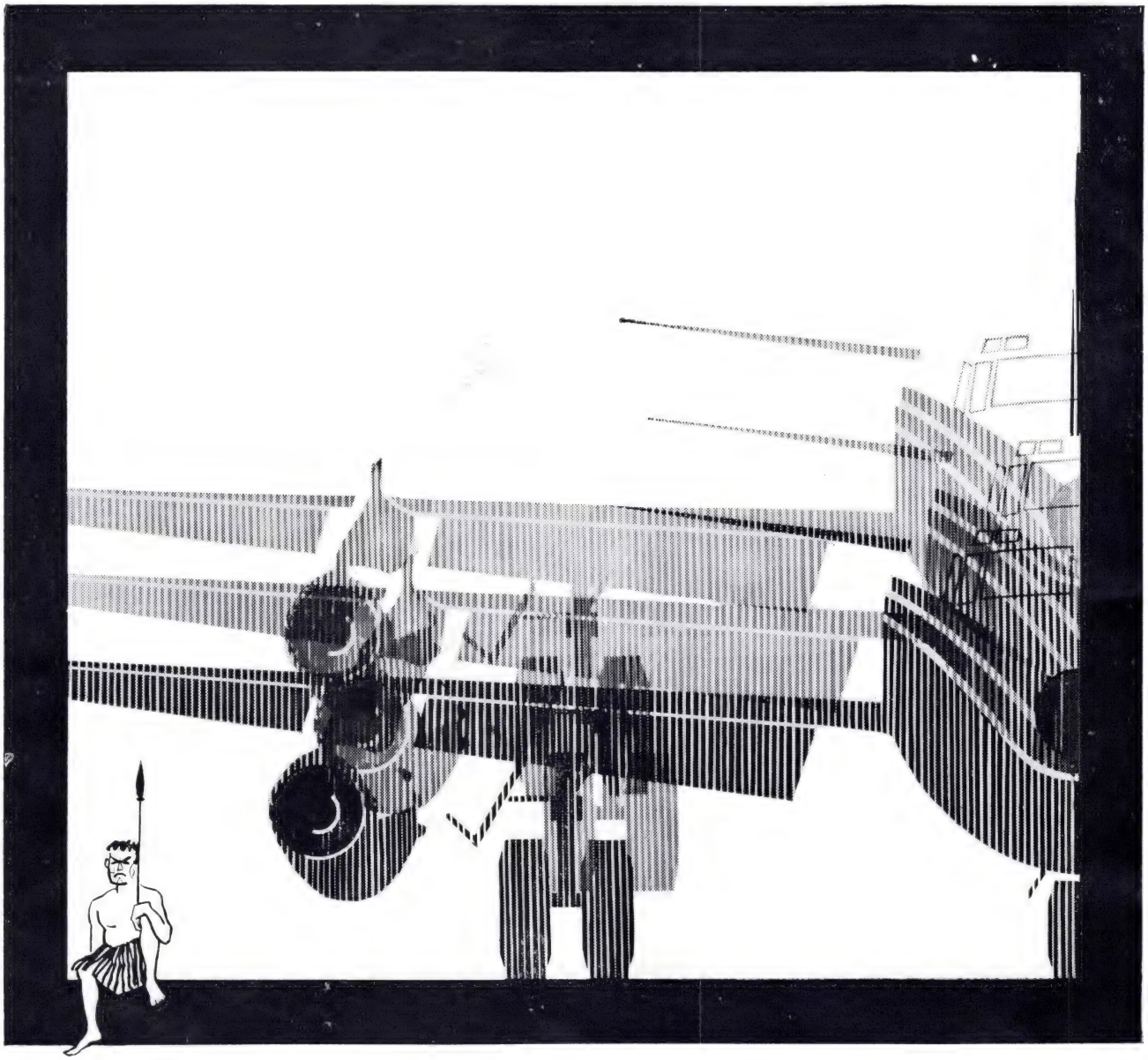
Tasman Empire Airways was established in 1940 to run a transtasman flying-boat service.

On the commercial front, the British Commonwealth Pacific Airlines began operations between New Zealand and Canada in 1948, but this corporation of British, Australian and New Zealand Governments was dissolved in 1954.

Canadian Pacific Airlines started a Pacific service in 1952 with Canadair 4 aircraft which were replaced a year later by DC6B's.

In 1957 the French airline TAI, later becoming UTA-Air France, began a service between Auckland and Noumea. This was suspended at the beginning of last year and was subsequently taken over by Air New Zealand.

South Pacific Airlines of New Zealand began a service to smaller centres in both islands in 1960 with a fleet of three DC3's.



IMAGINE, 20,000 GALLONS OF FUEL IN 20 MINUTES AT A PLACE THE MAORIS CALLED `LAZY'

A Maori Chief by the name of Ihenga, having crossed the Waikato, came to a place adjacent to the Auckland Harbour where he rested and his men prepared him food. But his men were tired and they took a long time, so long that Ihenga's anger was aroused and he cursed his men and showed his discontent by naming the place Mangere — the Maori word for lazy. And that's its name today.

But times have changed and Mangere is the site of Auckland's new International Air Terminal. Like Ihenga, the International Airlines want service. Fast service. The kind of service that Air BP supplies to International Airlines at major airports around the world. With its know how and experience, Air BP speeds turn around and can pump as much as 20,000 gallons of fuel in 20 minutes. That's why so many of the fast flying Airlines of today specify fast-fuelling Air BP.

fast fuelling . . .

AIR BP

at Mangere. A.4

. . . THE FUTURE

NEW ZEALAND is undoubtedly on the threshold of tremendous development in the field of civil aviation. For the Auckland International Airport no crystal ball is required to foresee an efficient new terminal building worthy of the city to be in use in four years.

This is a promise of the Government. And with the assistance of the Department of Civil Aviation, the knowledge of the airport manager, Mr R. W. G. Emery, and the backing of the Government, the gateway to New Zealand for overseas visitors should be worthy of the name.

The interim building will then assume its proper role — that of a freight centre. Here again, nothing but expansion can be expected. Air freight, known as the "sleeping giant" of the industry, will not continue to slumber much longer and the explosive growth of this industry will soon be felt here.

On the international front there can only be increasing frequency of services and more of the big international airlines will be calling here.

Air New Zealand is planning services through to London in the not too distant future and this will inevitably lead to more activity.

At the present stage, Auckland will be served by jet airliners of Air New Zealand, Qantas, the British Overseas Airways Corporation, Canadian Pacific Air Lines and Pan American Airways and one can forsee services from Italian, West German, Dutch, Indian, Japanese, French and other airlines.

For New Zealand is on the main South Pacific route and presents a wonderful tourist attraction.

Modern airport terminal facilities at Singapore (top of page) and Los Angeles

Even on the domestic front, changes are imminent. In two years the National Airways Corporation Viscount fleet will be replaced by pure jet airliners, and other new passenger aircraft will be seen in operation.

By 1966 the "stretched" airliner capable of carrying 250 and more passengers will be flying; there is planning for aircraft to carry 600 or 1000 passengers; the supersonic transport is on the way.

New Zealand has reached a milestone in this age of changing transport patterns and Auckland International Airport will undoubtedly reflect in no uncertain manner these latest developments.

MAORIS HAD THEIR NAME FOR IT

THE meaning of the name Mangere is less than appropriate these days. The translation of this Maori word is simply "lazy."

The origin is of course obscure, but one version is that Mount Mangere had the appearance of a reclining man.

Another explanation is that after Ihenga, grandson of Tama-te-kapua of the Arawa canoe, and his uncle Kahumatamomoe crossed the Waikato on their northward journey they rested while food was being prepared and became impatient at the delay.

Kahu named the place Mangere because of the laziness of his young men.

Archaeologists have unearthed evidence which indicates that the district was inhabited by the moa hunters some 800 years ago. There is also evidence of the subsequent settlement of the Waiohau tribe which tradition says was the first to settle there.

In more recent history the first organised settlement was little over 100 years ago when in 1849 Governor Grey was concerned for the safety of the capital Auckland from the warlike tribes in the Waikato. He knew that the war party had as one aim the sweeping away of all Europeans from the Auckland isthmus.

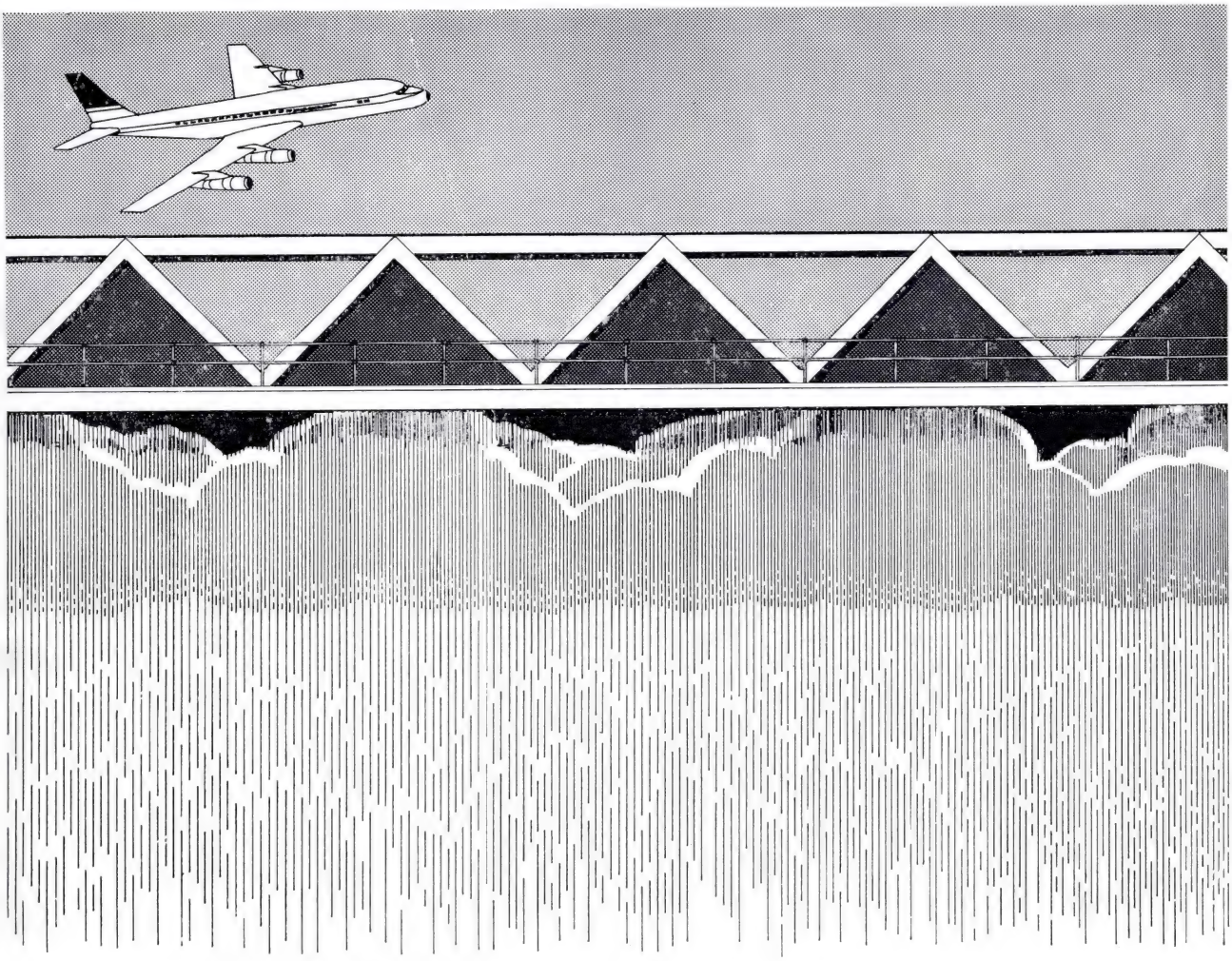
Imperial time-expired soldiers' settlements were established at Onehunga and other places and friendly Maoris were allowed to settle on 480 acres at Mangere as an auxiliary force. These comprised some 80 families of the Ngati-Mahuta tribe whose chief was Te Wherewhero.

In 1860, following the Taranaki wars, Grey demanded oaths of allegiance from the tribe. This the Maoris at Mangere refused and under cover of night returned to the Waikato. By 1865 the worst of the Waikato war was over and several of the families returned to life at Mangere.

St James Anglican Church, Mangere Bridge, one of the historic churches of Auckland

Incidentally one of the historic churches of Auckland stands there. It was started in 1857 and one of the first donations was £10 from Bishop Selwyn. Named St James' Church, it was a twin to St Thomas' Church at Kohimarama which subsequently had to be rebuilt.

In more recent times Mangere became noted as the home of the Hon. W. F. Massey, one of New Zealand's most famous Prime Ministers. His mother and father settled there in 1862 and were joined by their 14-year-old son in 1870.



cloud bursts to order...

Fire protection of a special nature is essential at the Air New Zealand Hangar when the big jets are under cover and this is provided by the 'Fyretron' Automatic Duo-Control Deluge System installed by Wormald Brothers (N.Z.) Limited. During the tests of this spectacular system, water poured to the concrete floor at a rate equal to 18 inches of rain in 45 minutes. This man-made cloud burst was so intense, it was impossible to see through.

The 93,800 square feet area of the Hangar is protected by 14 zones containing 1,416 deluge heads.

The pumping plant comprises 3 diesel driven pumps, each capable of delivering 2,600 gallons of water per minute.

This deluge system, the first of its kind in New Zealand, is the most efficient automatic form of aircraft hangar protection.

London, Sydney and Copenhagen Airports amongst others have similar installations.

This Automatic Fire Fighting System confidently stands watch ready to subdue any fire with a cloud burst to order.

Automatic Duo-Control Deluge System

Designed, Engineered and Installed by the
Fire Protection Division

WORMALD BROTHERS

throughout New Zealand

WORMALD BROTHERS HAVE ALSO MANUFACTURED THREE WATER AND TWO SPECIAL FOAM AIRFIELD CRASH TENDERS. IN KEEPING WITH ALL WORMALD BROTHERS FIRE PROTECTION EQUIPMENT THESE ARE THE MOST MODERN AND EFFECTIVE MACHINES OF THEIR TYPE. F.P.9

WINSTONE LIMITED LAID 'A PATH ACROSS THE TASMAN' During the course of the contract Winstone Limited delivered 300,000 cubic yards of metal and sand to the Mangere Airport site . . . enough to lay a path $2\frac{3}{4}$ inches thick, 5 feet wide from Mangere to Sydney. Winstone materials literally form the basis for Auckland's international air operations. The surface of the runway, taxiways and tarmac are all laid with Winstone supplied materials. NO job is too large for Winstone's quarries. WINSTONE LTD. 69-77 Queen Street, Auckland. Phone 34-200. Branches throughout New Zealand

AIR RACE HAS £1000 IN PRIZE MONEY

ONE of the main associated attractions of the air pageant will be an air race which will be held, weather permitting, on Friday, January 28. This will not be a straight-out speed event, but will be based on an undisclosed course in which navigation and course reading will play a big part and economy of operation will also be taken into consideration.

Speed will be a factor, but only insofar as it affects minimum fuel consumption; fuel tanks will be sealed.

Up to 100 aircraft are expected to enter as the race is open to all — aero clubs, private owners and other organisations.

The aircraft will be handicapped on type classification.

The race will start and finish at Ardmore.

Rothmans has donated prize money to the extent of £1000.

Tremendous interest was aroused in the last Rothmans air race organised by the Canterbury Aero Club in March, 1963.

This was a speed event, with entries limited to aero clubs and was from Christchurch to Masterton and return. It was won by a Victa Airtourer.

A photograph of the Hawker Siddeley 125 which is expected to appear at the display. This version is for the Royal Air Force, but is also used as a business aircraft or trainer.

LION

...KING OF BEERS

salutes magnificent Mangere
Auckland's new
International Airport

WALSH BROTHERS —A LEGEND

The famous pair — Leo and Vivian Walsh.

THE brothers Leo and Vivian Walsh were the first New Zealanders to make a successful powered flight in the Dominion. That was in February, 1911, and until 1924 these two amazing men did more for the advancement of aviation in the country than anyone else.

They maintained and operated their own flying school at Mission Bay, using flying-boats and landplanes designed and constructed in their own workshops. They trained over 100 pilots for World War I, many of whom achieved fame overseas in both war and peace.

The school also pioneered commercial flying, operating charter services throughout the Auckland province and as far afield as Wellington.

It was right and proper, therefore, that the Walsh brothers' contribution to aviation in New Zealand should never be forgotten, and the New Zealand division of the Royal Aeronautical Society has made sure of this by the establishment of a memorial scholarship.

The idea was conceived in the 1930's, and today a £20,000 target has been fixed to assist anyone within the aviation industry to further his knowledge in New Zealand or overseas.

Particular emphasis is placed on the technical side, but the provisions of the scholarship are intended to apply equally to all sections of the industry.

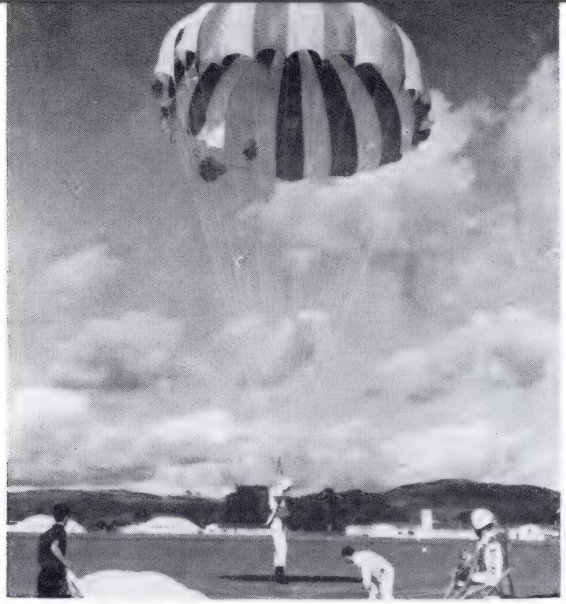
It is a particularly appropriate object at this stage because it marks the centennial year of the Royal Aeronautical Society which, of course, had its beginnings in the balloon era.

Leo and Vivian Walsh could probably be described as the original do-it-yourself New Zealanders, although the family originally came from Bradford in Yorkshire.

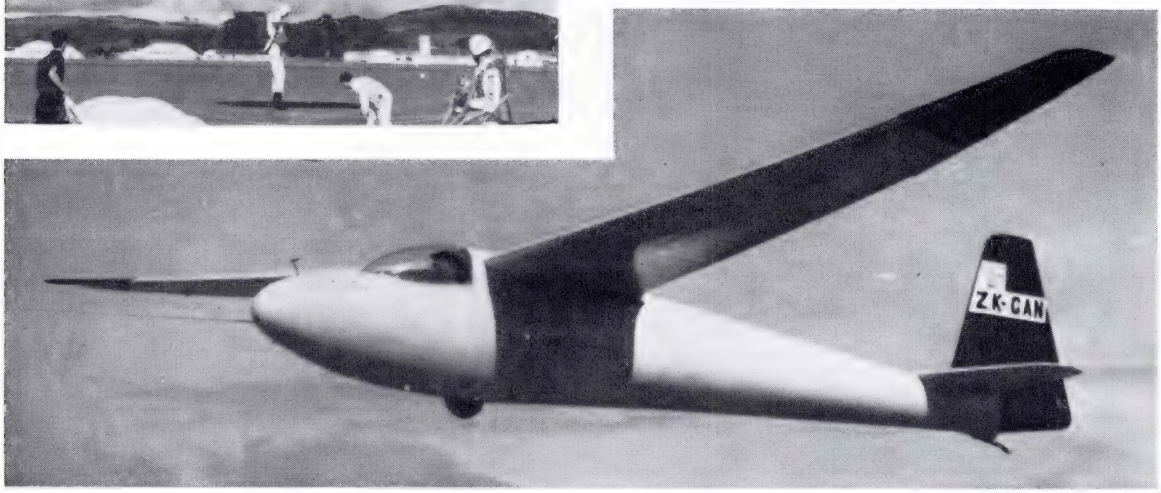
Leo, the older, was the planner and organiser, and Vivian was the pilot — self-taught. The flying-boat they constructed was the first ever designed, built and flown in the Southern Hemisphere, and it flew on New Year's Day, 1915.

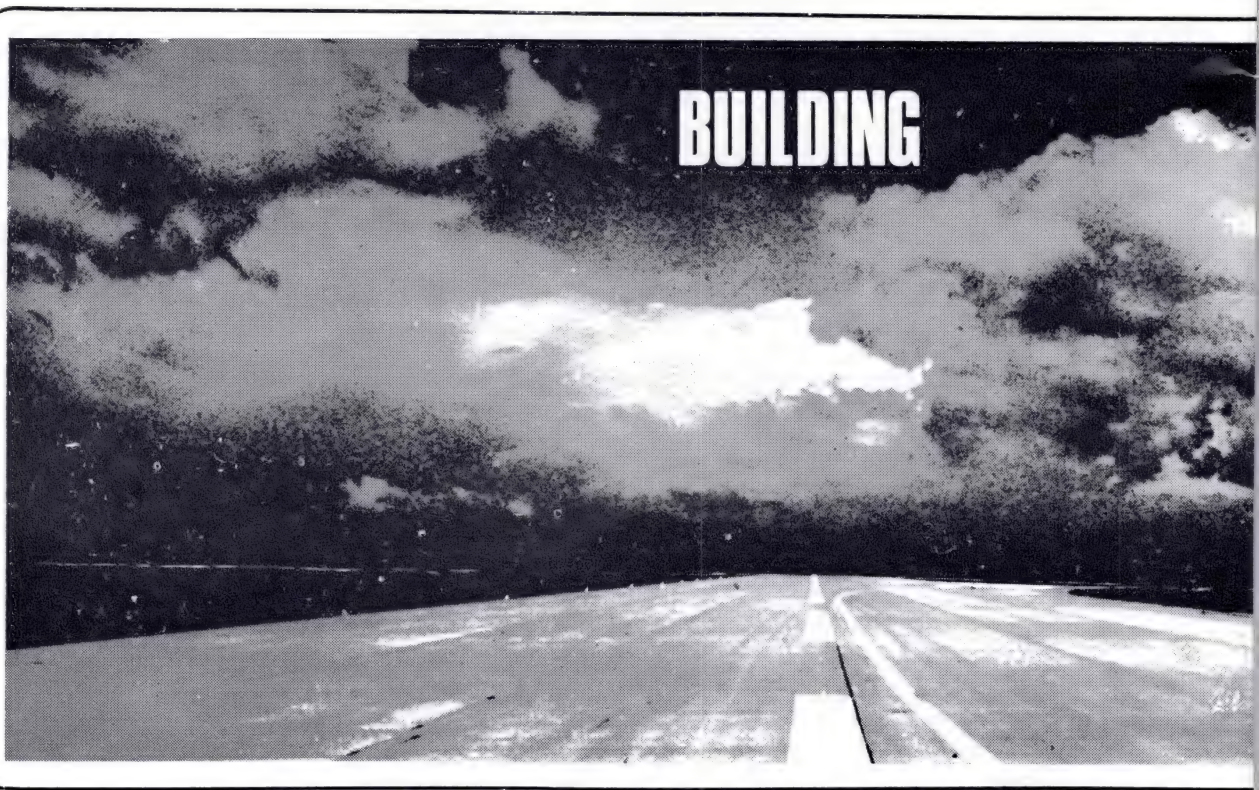
The Minister of Civil Aviation, Mr McAlpine, marked their contribution to aviation when he unveiled a plaque in Mission Bay in 1961 on the 46th anniversary of the opening of the flying school.

And so, by the succcess of this pageant the names of these two pioneers will be remembered in the years ahead.



Parachute falls and gliding will be among other popular displays provided by local clubs.





HELICOPTER AT WORK

THE adaptability of the helicopter will be dramatically demonstrated by Alexander Helicopters Ltd, of Wanganui.

Using a Hiller machine, it is proposed to feature the construction of a power line.

Poles will be lifted from the ground and deposited in pre-dug holes. Then wires will be strung between the poles. The operation will be completed with the dismantling of the wires again. The tension stringing system for power lines has only recently been developed in New Zealand.

It is also planned to put on a short flying demonstration in which the pilot will broadcast directly to the spectators by radio exactly what he is doing and how it is brought about — learning to fly a helicopter in one easy lesson.

A helicopter being used to transport an aluminium light standard to Kawau Island.

3 FAMOUS NAMES – each a leader in it's field!

MAGNAFLUX
AND
SPOTCHECK

Locate metal fatigue surely and swiftly.

The safe, infallible method of detecting strain, cracks and flaws in Aircraft, Automobile and Mechanical or Structural Components.

BELL
HELICOPTERS

The world's most versatile machines

Bell builds more commercial helicopters than all other helicopter manufacturers combined.

THE MORANE SAULNIER
Rallye

The primary trainer that can handle top-dressing strips without insurance prejudice.

•

Choose from the Rallye 880, 885 or the Rallye Commodore. The choice of Aero Clubs and Flying Schools throughout New Zealand.

For further information, phone, write or call

SEABROOK FOWLDS LTD

77-89 SYMONDS STREET, AUCKLAND.

MANUKAU ROAD, AUCKLAND **VICTORIA STREET, HAMILTON**

IN-FLIGHT MEALS
BY THE THOUSAND

will be prepared in the
AIR NEW ZEALAND
flight kitchen, operating at
AUCKLAND'S INTERNATIONAL AIRPORT

This large catering facility has been planned and equipped to international standards in food service design, and features the best in electrical and steam heated cooking equipment, special purpose refrigeration, and dishwashing apparatus,

by the commercial kitchen engineers . . . .

ATHERTON BENHAM (N.Z.) LTD.

22 KITCHENER STREET: TELEPHONE 20-092
P.O. BOX 5946: TELEGRAPHIC ADDRESS "ATHAM"

PAGEANT COMMITTEE HAS BIG TASK

NO stone has been left unturned to make the air pageant marking the opening of the new airport an unqualified success and to this end committees and individuals have been working quietly but steadily for the past two years.

The great burden of this work has fallen on a specially set up pageant committee representing all aspects of city life as well as many technical sub-committees which have been responsible for the detailed planning.

The main committee has been headed by Mr D. M. Robinson, who as former Mayor of Auckland has been noted for his drive and initiative. On him has fallen many of the major decisions.

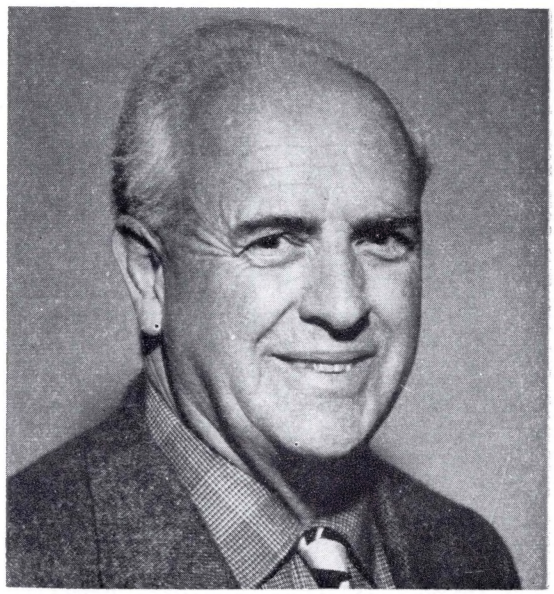
He has been ably supported and seconded by Mr D. A. Patterson, general manager of the National Airways Corporation, whose previous experience with aviation displays has helped in the overall organisation. Mr Patterson was chairman of committees responsible for two previous displays in Auckland and one in Wellington in support of the Walsh brothers memorial scholarship.

Captain J. H. Malcolm, formerly of NAC, has acted as full-time secretary to the committee and he has had the job of co-ordinating the activities of the sub-committees as well as dealing with all the tremendous amount of paperwork such a large function has entailed.

The chairmen of the various specialist committees have formed the backbone of the organisation and they are Messrs R. J. Powell (operations committee), T. D. Kemp (static display), E. A. Bell (crowd control and public services), R. Porter (finance), H. W. Wratt (traffic), G. F. Gair (publicity and public relations), J. J. Wigglesworth (gate-keeping, ticket sales and labour), and Sir Keith Park (reception and entertainment).

Others on the main committee are Messrs R. Bennett (chairman of the airport committee of the Auckland Regional Authority), T. A. Barrow (Auckland Aero Club), R. W. G. Emery (airport manager), A. Holdsworth (regional superintendent for the Department of Civil Aviation), B. P. Hopkins (honorary solicitor), N. A. Lake (Auckland City Council traffic superintendent), R. E. Shand (light aircraft industry), Group Captains A. L. Parlane and R. K. Walker (Royal New Zealand Air Force).

The committee has had the willing assistance of many firms and organisations and acknowledges with thanks that of the Auckland City Council, Air New Zealand, the National Airways Corporation, Beechey and Underwood Ltd., Coulls, Somerville, Wilkie Ltd., and the New Zealand Broadcasting Corporation.



The chairman, Mr. D. M. Robinson (top) and the secretary, Captain J. H. Malcolm.

A £10 MILLION PROJECT

Mr E. A. Flynn, project engineer for the Ministry of Works, who was responsible for the major development work at the airport.

THE Auckland International Airport is estimated to have cost £10 million when the project is completed in 1969. This sum includes £2.5 million for the permanent terminal building, apron areas and other facilities.

The site comprises 1060 acres, including 233 acres reclaimed from the Manukau Harbour. Clearing work started in January, 1961, and 120 houses and baches had to be moved.

The whole project was placed under the overall supervision of the Ministry of Works following planning and briefing by the Department of Civil Aviation which was also responsible for the navigation and communications systems.

In April, 1962, the English-New Zealand combine of Taylor Woodrow Wilkins began a £2.7 million contract to build the main runway, taxiway and the high-speed turn-offs connecting them, lay aprons, install a 250,000-gallon reservoir and a raising sewer and build five miles of internal roading with stormwater drainage and overhead lighting.

A total of 101 acres of concrete 12 to 14 inches thick was laid and it took 135,000 tons of aggregate and 50,000 tons of cement.

Under this is 500,000 cubic yards of scoria 34 to 37 inches thick and 112,000 cubic yards of base course metal 4 inches thick.

The paved areas are designed to carry aircraft with an all-up weight of 500,000 pounds, or 225 tons.

The runway is 8500 feet long and 150 feet wide, with five high-speed turn-offs and two normal ones.

There are 120 miles of wiring beneath the ground, six miles of ducts and 52 miles of drainage.

All staff on the airport will total approximately 1000, of whom 120 will be employed by the Department of Civil Aviation.

AIRPORT DETAILS

Latitude — 37° 00′ 20″ South.

Longitude — 174° 48′ 25″ East.

Airport — 8½ nautical miles south-south-east of centre Auckland City.

Runway — 05/23.

- Length — 8,500 ft.
- Width — 150 ft.
- Surface — Concrete.
- Elevation — 23 ft.
- Strength — Bearing strength capable of taking aircraft with all-up weight of 500,000 lbs.

Operational Facilities —

Lighting

- Approach Lighting.
- Runway and Threshold Lighting.
- Taxiway Lighting.

Navigational Aids

- Twin Locator Approach.
- Instrument Landing System (ILS).
- Very high frequency omni-directional radio range (VOR).
- D.M.E. beacon.
- Long Range Surveillance Radar.

Mean temperature in January — 66.6° F. (19.2° C.).

Qantas V-Jets fly from Auckland to the world

Qantas congratulates Auckland today — the official opening of Auckland International Airport at Mangere and are proud that their Boeing 707 V-Jets operate to and from this airport. Now you can fly from Auckland in the superb comfort and luxury of Qantas V-Jets to any of the five continents spanned by the Qantas world-wide network — to Australia, America, Africa, the United Kingdom, Europe, the Middle East, Asia and the Orient. Consult your Travel Agent, Air New Zealand or Qantas.

Australia's Round-World Airline

QANTAS

45 years of dependable service

QANTAS EMPIRE AIRWAYS LIMITED, in association with AIR INDIA, B.O.A.C., S.A.A. and AIR NEW ZEALAND.
AIR NEW ZEALAND, QANTAS' General Sales Agent in New Zealand.

AK 1040

PRINTED BY WILSON & HORTON LTD. AND AUCKLAND STAR COMMERCIAL PRINTERS

FLY NAC NEW ZEALAND'S NATIONAL AIRLINE

LARGEST USER OF AUCKLAND INTERNATIONAL AIRPORT